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WORK FOR THE MONTH.

AUGUST.

As is our custom of the month, we shall proceed to briefly state some of the most important matters that should claim the attention of farmers and planters during this month, and it may be opportune to the occasion to say, that the earlier the several matters be attended to, the better will the results be; as *procrastination*, in all things connected with agriculture, is among the worst of evils than can befall it.

FALL TURNIPS.

For reasons which we stated last month, it would have been better that fall turnips had been sown about the 25th of that month; but we will, however, remind our readers that they may be sown any time between the 1st and 15th of the present one, with the surety of success, the season being propitious. It should, however, be made an object of moment with every grower of this excellent root, to sow the seed, if possible, by the 10th of the month. And we will here add, that, as turnips, when the ground is generously manured and thoroughly prepared, is a highly productive crop, and serves to eke out the ordinary food of a farm, all owners of stock should put themselves to some trouble to get in a few acres, in order that their resources for cattle feeding may be thereby augmented.

SEEDING RYE.

Time.—Rye may be seeded any time during this and the ensuing month; from our own personal experience and observation, however, we incline to the opinion, that it should be sowed by the 20th of this month.

Of the Soil, &c.—All experience teaches us that the rye crop most delights in a soil where sand greatly predominates; experience teaches us too, that it will yield a tolerably remunerative crop on soils too poor for almost any other of the grain family; but, because it will do this, it does not follow that true economy—the interests of the grower—are promoted by committing a crop of rye to an exhausted field, unaided by manure; for rye, like every other plant that grows, requires food, and hence, all poor lands on which rye may be grown, should be manured, and although less manure will answer than for wheat and other grains of the same family, some manure is absolutely necessary to ensure a good crop of grain.

Many a luxuriant crop of rye, so far as the *straw* is concerned, yields but a beggarly quantity of grain; and the question is often asked, why this is so? and much oftener asked than satisfactorily answered. It has sometimes been ascribed to the fact of a rain having occurred while the plant was in blossom; now while we are willing to admit, and do admit, that this cause is competent to decrease the quantity of grain to some extent, we are, unwilling to believe that it is the sole cause, but that there is another one, that exerts a potent

action in bringing about the great disparity of product between straw and grain. According to the present system of farming, the practice has obtained, of consigning the rye crop to the poorest and most exhausted field on the farm, and that too, without the application of manure; as if the roots, the stalks, the leaves and the grain, of the rye plant could be built up out of nothing. When it is considered that after the formation of the seed, the leaves gradually dry up and lose their absorbent properties, it is but reasonable to presume, that from that period the grain must receive its chief food from the earth, as from the aridity of the leaves of the plant, its supply from the atmosphere has been mainly cut off. Suppose then, that from the exhausted condition of the soil, the plant finds an insufficient supply of food therein, what, we would ask, is, the conclusion at which the mind must arrive? Why, that the crop of grain will be consequently small, as its product must necessarily bear a just relation to the materials out of which it was constructed.

Let us compare the constituent elements of which wheat and rye are comprised, and that, we think, will teach us that though wheat may require more manure than rye, that rye requires some.

A TABLE

Shewing the average of organic substances in wheat and rye.

	Wheat.	Rye.
Water, - - - - -	15	12
Starch, - - - - -	42	40
Gum and Sugar, - - - - -	9	14
Nitrogenous substances, - - - - -	15	13
Oil, - - - - -	2	3
Woody fibre, - - - - -	15	16
Ashes, - - - - -	2	2

If we look at the above table, our reason would lead to the conclusion, that, in fact, the rye crop stands in nearly as much need of *organic manure*—and especially on the poor sandy fields allotted to it, as does the wheat crop, and yet experience has demonstrated that it will grow with considerably less.

Now let us see how stands the relative account of the inorganic constituent elements of wheat and rye.

According to Sprengle's analysis, 1000 lbs. of wheat leave 11.77 lbs. of ashes, and 1000 lbs. of straw leave 35.18 lbs. of ash, after burning. 1000 lbs. of rye straw contain 27.93 lbs., and of grain 10.40 lbs. of ash, which on analysis shew the following results:

	Grain of Wheat lbs.	Straw of Wheat.	Grain of Rye lbs.	Straw of Rye. lbs.
Potash,	2.25	0.30	5.32	0.32
Soda,	2.40	0.50		0.11
Lime,	0.96	2.40	1.22	1.78
Magnesia,	0.90	0.32	1.78	0.12
Alumina & trace of iron,	0.35	0.90	0.66	0.25
Silica,	4.00	28.70	1.64	22.97
Sulphuric acid,	0.50	0.37	0.32	1.70

Phosphoric acid,	0.40	1.70	0.46	0.51
Chlorine,	0.10	0.30	0.09	0.17
	11.77	35.18		
Oxide of Magnesia,			0.34	
			10.40	27.93

Here again, the *inorganic* elements do not show that degree of disparity, which would indicate that rye can be grown without manure, any more than can wheat, and we all know, that if we aim at growing a heavy crop of wheat, we must manure, we must provide it materials to form the grain out of. And hence by parity of reasoning, the deduction is a fair one, that, if we desire a large product of rye, we must manure the ground upon which we may grow it, especially if it be poor and exhausted.

As to Manures.—Having concluded in our mind that a large yield of the grain of rye cannot be produced on an infertile soil without the aid of manure, we will state what we believe will serve to conduce to a good yield on an acre in rye.

1. 100 lbs. of Peruvian guano, to be ploughed in.

2. 100 lbs. ammoniated Super-Phosphate, to be ploughed or harrowed in.

3. 100 lbs. of Colombian or Mexican guano mixed with 5 two-horse loads of barn-yard or stable manure, and 10 bushels of ashes, to be mixed together and ploughed in.

4. Ten two-horse cart loads of barn-yard or stable manure, to be ploughed in.

5. Five two-horse cart loads of barn-yard or stable manure, to be mixed with 10 two-horse cart loads of river or creek mud, and 10 bushels of ashes, to be ploughed in.

6. Five two-horse cart loads of barn-yard or stable manure, to be mixed with 10 two-horse cart loads of woods-mould and leaves, and 10 bushels of ashes,—to be ploughed in.

Note. Wherever it may be inconvenient to obtain ashes, 50 lbs. of Glauber salts may be substituted therefor.

Preparation of the ground.—Plough deeply and accurately, and pulverize thoroughly, and roll before sowing the seed: the seed being sown, harrow and cross-harrow the seed in, then roll again.

Quantity of seed per acre.—From 5 to 6 pecks is about the most advantageous quantity of seed.

SETTING A TIMOTHY MEADOW.

If you intend setting a timothy meadow the present season, it is time that you were making the necessary preparations. Manure liberally with animal manure of some kind, as barn-yard manure, Peruvian guano, bone-dust, or any other kind in which nitrogenous elements largely abound. Recollect that as you desire your meadow to last for many years, you must be generous in the application of your organic manure, which should be ploughed in. Besides this, you should top-dress with 10 bushels of ashes per acre.

If you design any portion of your hay for market, timothy is the best grass to grow, as timothy hay is the best and most popular hay that you can offer in the market.

Preparation of the ground.—It should be ploughed from 6 to 8 inches deep; be harrowed and rolled until a perfectly fine tilth be obtained, and rolled before the seed be sown.

Quantity of seed per acre.—From 1 to 1½ pecks of seed per acre is the proper quantity.

Sowing the seed.—Let the seed be carefully sown by a man that can distribute it equally; then light-

ly harrow it in with a light seed harrow, and roll. Water furrows must be formed; these to be rolled across.

Time of sowing.—From the 20th of August to the 10th of September.

MANAGEMENT OF LATE POTATOES.

Keep these clean of weeds, and the earth well stirred between the rows, and give them a free dusting of a mixture comprised of 2 parts ashes, 1 part plaster, and 1 part salt.

GRANARIES.

Have these well cleaned out before you store away your grain; wash the floors, sides and ceilings with hot ley, and when dry, give the whole a whitewashing. Slake the lime that you make the whitewash out of in the granary, and close the door.

POULTRY HOUSES.

Cleanse and whitewash these: clean out the nests, and put in fresh nests, putting a little refuse tobacco at the bottom of each nest.

While upon this subject, permit us to remind you that the manure of your poultry is the best made on your place; that every two barrels of it, if kept dry, will grow 30 bushels of wheat. Save it, therefore, and to its extent save you from purchasing so much guano.

THRESHING GRAIN.

Get your grain threshed out early, so as to have it ready for market when good prices invite you to sell; and see to it that the grain speculators do not put the profit into their pockets which should go into your own.

SHEEP.

Treat these as we advised you last month.

MILCH COWS AND TWO-YEAR OLD HEIFERS.

Have these served this month. In selecting a bull, be sure that you get a good one—a Durham an Ayrshire, or a Devon. Money thus laid out will bring you compound interest in the superiority of their progeny.

LATE CORN.

Keep your cultivators and corn-harrows busy in your late corn until you lay it by. Exterminate all the weeds, and keep the earth open to receive the full benefit of the air and rains.

FALLOWING FOR WHEAT.

In preparing your land, recollect that if it be dry and sound, it will be to your interest to plow it from 7 to 8 inches in depth, and see that your ploughmen plough it carefully and neatly, and leave no balks behind them.

THE BUD OR DRILL WORM.

To the Editors of the American Farmer.

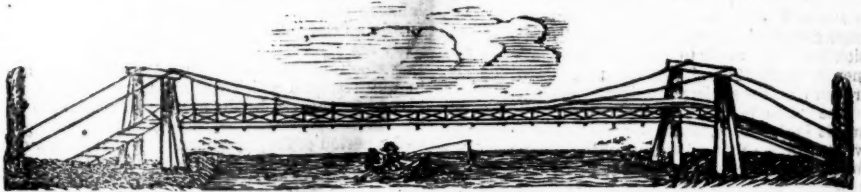
I would be glad to hear from you what would prevent the bud, or as some call it the drill worm, in low grounds, particularly in wet land, or where water has lain for a long time, and adjoining where there is a large quantity of vegetable matter collected; I cannot get corn to stand on some I have of that kind, and have replanted three times, up to the last of June—the worm bores in to the corn where the roots come out, and then dies.

Yours, &c.

A SUBSCRIBER.

Can any of our friends furnish us with an answer to the above? Drain the land thoroughly and lime it heavily we think, will accomplish the object.—Ed.

WIRE SUSPENSION FOOT-BRIDGE, AT ELLENDALE, VIRGINIA.



ELLENDALE, June, 1856.

To the Editors of the American Farmer.

As some of your readers, who reside near water courses, may be desirous of a cheap and commodious mode of transit across them, I enclose a draft, rude though it may be, of our foot bridge at Ellendale, which crosses, in a single span of 182 feet, a wide and very turbulent stream, and proves a great accommodation to ourselves and neighbors. It is constructed of wire, the ends of the cables from which the flooring is suspended being made fast to trees which chanced to fall in the way, and which we left entire; although being but and unskilful hand at sketching—*ex gr.*—I have only attempted to represent their trunks, the branches and foliage being beyond my powers of delineation. The cables A, are composed of number 10 wire, ten strands to each, which are first cut, and stretched side by side to the desired length, between two points, and bound together at intervals of a few feet apart, with small wrapping wire, and then laid over the uprights, parallel to each other, in notches cut to receive them, and to keep them about eight feet asunder, so that the suspenders, which hold the flooring of about three feet in width, may form an obtuse angle with it; thus operating as stays to prevent it swaying, as would not be the case were they to hang perpendicularly. These cables are made fast at their extremities, in our case, to trees, or, if these be wanting, heavy stones, light masonry, or some other contrivance may be substituted. They should hang with a gentle curve, proportioned to the length of the bridge; the deflection from the horizontal may be about one foot in twenty. The suspenders B, are of a single strand of number 10 wire, cut to the required lengths which mathematical calculation must determine; and are then heated and flattened at the ends, that they may be joined and wrapped there with fine wire, after they have been passed over the cables, to form loops, which pass through holes in the ends of the sills, of scantling two by three inches, which support the flooring, and are kept in place by a small plug of hard wood inserted in the loop, which extends far enough below the sill to receive it. These sills hang at distances of four feet apart, and the flooring of inch and half pine, sixteen feet long, laid lengthwise, is nailed to them, care being taken to break the joinings. The suspenders are wrapped with small wire, to keep them to their places where they cross the cables, and are just enough twisted to allow the hand-rail of oak, inch by inch and half, to pass through them, which has the double advantage of sustaining the rail, and of making the suspenders, in sea phrase, taut. We had one rail ripped with a circular saw, from oak plank 18 feet long; halved and shouldered the ends

where they joined; pinned them together, wrapped them round with fine wire, and thus made a staunch affair of it; as we also bound it to the suspenders with wire, where it passed through them, and we gave the whole, i. e. the wire part of it, two or three coats of varnish, composed of boiled linseed oil and litharge, so soon as completed, to protect it from the rust.

The entire cost of our bridge, which is of unusual length, did not amount to one hundred dollars, and would have been much less if I had not commenced it with a bungler, and been compelled to do much of his work over again. I did not think it necessary to hew, or square the timbers for my supporters, but chose good, straight trees from the forest, about ten inches in diameter, which I may hereafter case with plank, for appearance sake; but, in our region, we are usually required to sacrifice the *pulchrum* to the *utile*—the ornamental to the necessary.

Farmers are so habitually accused of crying “wolf” in anticipation of harvests, that I am almost afraid to say to you that the red weevil is making sad havoc with our wheat. I examined several large and flourishing fields yesterday, and could not find a single head that had not more, or less of the enemy preying upon it. The wheat being very backward, in consequence of the cold Spring, renders it peculiarly liable to injury from insects, which feast on it in the green state. Our corn too, looks unpromising—many of us, myself among the number, have furrowed out, and replanted three times, and mine is now receiving its first, instead of, as is common at this season, its last working. The seed would not germinate, but rotted in the ground, and although ours was, to all appearance, perfectly sound and healthful, I was obliged after the second trial, to resort to a neighbor who had had his housed, whereas mine was exposed to the unusual severity of last winter in shock, or in ventilated cribs, though I have never before experienced this same consequence from these methods of preserving it.

Ever yours,

W. B. B.

Montgomery Co., (Md.) Agricultural Society, holds its annual Exhibition at Rockville on 11th September next, and have published a very liberal premium list as usual. At a meeting of the Society held on the 8th ult., Jno. L. Dufief, Esq., was elected President for the ensuing year, and Messrs. N. C. Dickerson, Dr. Washington Waters, N. S. White, R. J. Bowie and Francis Valdenar, Vice Presidents, and W. Veirs Bowic, Secretary.

The Charles Co. (Md.) Society have re-elected Gen. Chapman, President; Vice Presidents, Chas H. Wills, Saml. Cox, N. Stonestreet and Josias H. Hawkins—and Dr. Ferguson, Dr. Wills, F. B. F. Burgess and Wm. B. Matthews, Executive Committee.

For the American Farmer.

LIEBIG AND LAWES.

BY PROFESSOR S. S. HALDEMAN.

I would not have deemed it necessary to place these names in juxtaposition, were it not that allusion has been made to them in the *American Farmer* for April 1856, p. 313, in connexion with a controversy on the subject of universal manures.

The article to which I allude, is that of P. B. P., and it is the more worthy of attention from being written in a spirit of truth-seeking candor, with a full appreciation of the importance of the questions at issue. Consequently, should such an article contain accurate deductions from false premises, or erroneous deductions from ascertained facts, it would have a tendency to place agricultural science in a false position, were it not that the means of verification, as far as they have been discovered, are within the reach of every inquirer. I bring together here, two extracts from different pages of P. B. P.'s article:

"Prof. Way states 'he had calculated from data furnished by some rich loamy land of tertiary drift, that the soil, within available depths, contained ammonia at the rate of one ton, (six tons guano), per acre, and that this was a stock of wealth' &c.

"These experiments [Mr. Lawes'] conducted through some eight or ten years of successive cropping on a heavy clay, wheat soil, such a soil physically, at least, as the one found by Prof. Way to contain so much ammonia, while they seem to put an everlasting extinguisher on the theory of Liebig, seem to prove conclusively the necessity of ammoniacal applications to heavy clays, and also as a matter of course to all other soils."

Here are several assumptions which have no foundation in the facts cited, that especially, wherein a heavy clay is affirmed to be identical with a rich loam. Far from qualifying this language, it is enforced by the statement that the two soils are alike, "physically at least," that is in texture, quality and action. There can hardly be a greater difference than that which exists between "a heavy clay" and a "rich loamy land of tertiary drift," and therefore including the different fertilisers which various rocks furnish, with an abundance of ammonia, probably from the animal remains of the tertiary period, whilst the low specific gravity of the particles derivable from vegetable decomposition, would cause them to be deposited with the comminuted mineral washings, from which rich and loamy land would result.

In the second place, P. B. P. thinks that Lawes' experiments "seem to prove conclusively the necessity of ammoniacal applications to heavy clays, and also as a matter of course, to all other soils." Having made a heavy clay physically like a rich loam, if the former requires ammonia, the latter "as a matter of course" requires it also, even though it contains naturally as much ammonia as it could get from six tons of Peruvian guano! If this reasoning were not too loose to prove any thing, it would prove that the side it opposes, is the correct one, but it is scarcely less unjust to Lawes than to Liebig.

Among the many experiments of Mr. Lawes, P. B. P. quotes one made with "Liebig's special mineral manure, and the yield of this acre, (17 bushels) was no greater than on an adjoining acre unmanured." Liebig himself quotes another of the series thus: "Liebig's mixed manure alone was in some degree superior to the rest; for the lot manured with it yielded 184 lbs. of grain and 221 lbs. of straw more than the unmanured one."

Far from being "extinguished" by Mr. Lawes, Liebig has satisfactorily refuted the positions of the former and used his own experiments to confirm the mineral theory. The arguments are fully stated in Liebig's *Principles of Agricultural Chemistry*, 1855. They are too extensive to be transcribed here, but they show that Mr. Lawes tried the effect of mineral manures on land which had already a plentiful supply, as was proved by the portion which, for the purpose of comparison, was left unmanured, during the entire period of the experiments. I make a few quotations from Liebig's strictures—"Mr. Lawes then, as appears from the passages, chose for his experiments a portion of land which, on account of its being so rich in available mineral constituents, and of its other qualities, was utterly unsuited to his purpose, and which ought to have been unhesitatingly rejected, if the object was to test the value of the mineral food of plants. And since the mineral manure in these circumstances, could not possibly have the effect expected by Mr. Lawes, his conclusions are destitute of all foundation in logic or in facts," p. 46.

"It is not easy to understand how Mr. Lawes could deduce from his results the conclusion, 'that nitrogenised manures are peculiarly adapted for the culture of wheat,' since such manures can only produce a favorable result if certain preliminary conditions, which Mr. Lawes has entirely disregarded, be fulfilled," p. 60.

"It is evident, from Mr. Lawes' experiments, that by the use of ammoniacal salts as manure, in the action of the mineral constituents present in the soil, and available, is accelerated in the time of the experiment."

"If we suppose the whole amount of the available mineral matters required by wheat in the soil of one acre to be equal to 12, and to suffice for 12 successive annual harvests for grain and straw, we shall have, on the supposed acre, in twelve years, twelve crops, without the use of mineral manure, and without the use of ammonia."

"If we manure the same land with 3 cwt. of ammoniacal salts, we shall have in one year, a crop one-half heavier than on the unmanured land; we shall obtain annually $1\frac{1}{2}$ crops, or in eight years, the produce of twelve average crops. That is to say, the soil will have lost in eight years, as much mineral matter as it would have lost in twelve years without ammoniacal salts: it will therefore be exhausted, or become unfruitful for wheat, four years sooner than if no ammoniacal salts had been used," p. 62.

"In one case only does the fertility of the soil manured with ammonia or its salts maintain itself, radically, when these are accompanied by mineral substances which are annually removed in the crops," p. 63.

"With the use of ammoniacal salts alone, without any mineral manure, no cultivation whatever can be permanently kept up, if farm yard manure be excluded. The experiments of Mr. Lawes led to this conclusion, and if these experiments be duly examined, the truth of what I said in the introduction, namely, that of all experiments, none are better adapted than those of Mr. Lawes to pave the way for the so-called Mineral Theory, will be admitted," p. 64.

Mr. Lawes himself admits that "in some experiments, where no minerals have been supplied, the salts of ammonia are not producing their accustomed effect; an excess of azotised condition is commencing, and the mineral manures will now have to be employed to increase the natural produce of the soil."

And in another place, "We by no means suppose,

however, that if some cheap source of ammonia were discovered, we might with impunity continuously exhaust our soils in the growth of corn by its means, but, on the contrary, fully admit that, *under such a course, our mineral supply would soon become deficient.*"

And finally, Mr. Lawes admits that in every case where, in addition to ammonia, "*minerals have been also liberally supplied, we have in corn, straw, or both, a considerably larger increase still.*"

I quote from the New York edition, of Liebig's book, published by Wiley. It should be in the hands of all who take an interest in the progress of Scientific Agriculture. II.

Columbia, Pa. June 30, 1856.

A SYSTEM OF FARMING.

To the Editors of the American Farmer.

GENTLEMEN:—Your July number of the "Farmer" came duly to hand, much improved in every respect, and containing much interesting matter; but what I was most taken with, was Mr. Hewlett's "Well-managed Farm," and I beg leave to make a few remarks thereupon,—not so much upon the farm itself, as upon what you have to say about it. And what I shall say will have special reference to my old hobby, (the division of the farm,) for I intend to ride this old nag upon every occasion, until I either *break him down*, or make him a *better traveller*, as heaven knows he has made my bones and back ache by his awkward canterings. You seem to speak very sneeringly and contemptuously of the "venerable institution" of "cross-fencing," but do you recommend Mr. Hewlett's practice as a substitute for general adoption? I hardly think you will. I know full well the "cost" of fencing—but I do not see yet how I can dispense with it, *unless* my land was in a good state of improvement, sufficiently so, to raise provender for my stock for the time he keeps them in; besides I would certainly have to add to the number of hands to attend to the cattle at a busy season; but I will not raise too many objections to Mr. Hewlett's plan of farming, as I am glad to see and hear of the plans pursued by *every one*. But what I would most of all like to see, is the *plan, system, division, and arrangement* recommended and taught by the "American Farmer," and to bring you out upon this subject is the main object of this communication. I do not look upon your essay upon the division of the farm, &c., or your endorsing of Mr. Hewlett's system, as a putting forth of *your own* system, but only as sanctioning systems not specially objectionable.

Why is it gentlemen, that the "American Farmer" has never yet held forth to its readers, and systematically taught a settled and well defined plan of farming. Why do you leave us to grope in the dark, and feel about for ourselves, dissatisfied with old things, and unacquainted with, and afraid of new? For myself, my plans are at present pretty well settled, but they are the fruit of years of thought, and of labor, almost unassisted and alone. I think in th's thing you have overlooked a very important duty, for I will insist upon it that a proper division of the farm is the *grand basis* upon which the farmer has to build all his plans of profit and improvement. To be sure, he might by working all or nearly all his land, make large crops for a few years, but unless he could every year manure it as a garden, utter sterility would be the result.

I would like to be able to speak of the "system of the American Farmer," when talking upon that subject, and discussing the merits of other "systems," those old worn out two and three field systems particularly. I have come to the settled conclusion that poor land cannot be improved with less than five fields, or four fields and a standing pasture, or some plan of Mr. Hewlett's sort. I mean here, a system to suit farmers in medium circumstances, who have to raise corn, wheat, oats, grass, hogs, horses, oxen, cows, milk, butter, poultry, &c., and raise the land too. Gentlemen with full purses can spend and improve to suit their fancies, but their examples are more to be admired than followed. It will not do for the man who has to make his profits meet his expenses to forget that he has to *work* for his money, and not his money to work for him—that he has to plough his surplus funds (if indeed he is fortunate enough to have any) out of the earth.

I am glad you have made a beginning, in the way of publishing the systems of good farmers, and I sincerely hope you will keep it up; but most of all, I hope to see a system of farming advocated and taught as the *system* of the "American Farmer." And this system to be enforced, canvassed, discussed, and enlarged upon, two, three or four times a year, or as often as you think necessary. Do you not see the necessity of some teaching of this sort? Look at your correspondence from North or South Carolina, which informs you of a rotation of corn and wheat, and wheat and corn *ad infinitum*, and which you so ridiculed in one of your late numbers. By the way, how can you have the heart to laugh at this one's plan of farming, and praise that one's high pressure system, and sneer at the "venerable institution, established by certain highly respectable gentlemen, known as our forefathers," and at the same time withhold from them the system which most commends itself to your judgment and experience. Let us have it gentlemen, and we will decide whether it is better than Mr. Hewlett's, or the system of the Carolinas. I am, gentlemen,

Most respectfully, your ob't serv't,
"POMONKEY."

TOBACCO WORM.

WEST RIVER, July 16th, 1856.

To the Editors of the American Farmer.

There has been planted in this section a full crop of tobacco. Our only fear now is that the crop will be destroyed by the worms, which make their appearance about the middle of August.

One of my neighbors told me that he read a piece in the National Intelligencer, that the planters of Florida make a mixture of honey, cobalt, and something else, and put about a drop in the Jameson blossoms, and when the horn blower comes to eat, he is poisoned. Cannot some of your chemists prepare such a poison? A drop could be easily put into the blossoms with a stick, or quill from a bottle. Will you please aid us in this thing, by calling attention to such a system, and by giving the quantity of honey or syrup, cobalt, &c.; may-be common fly poison would do.

Very respectfully, &c.,
W. SHEPHERD.

[We ask the attention of our chemists and others to the above. Perhaps some of our Florida subscribers could give us information upon the subject.—Ed. Am. Far.]

TO DESTROY SORREL—LIME—GUANO, &c.

ELLERSLIE, NEAR CUMBERLAND, Md.,
 July 7th, 1856. }

To the Editors of the American Farmer:

GENTLEMEN:—A correspondent of the Baltimore Weekly Sun, over the signature of "FARMER," wishes to know what will destroy sorrel. My own experience has taught me that sorrel can be effectually destroyed by ploughing the ground deeply, and applying from thirty to fifty bushels of slaked lime to the acre—care should be taken to spread it evenly; then sow one and a half to two bushels of buckwheat to the acre, harrow and cross harrow until the ground is thoroughly pulverized. When the buckwheat is in full bloom, plough it carefully under, then harrow the ground nicely, then sow or spread from ten to twenty bushels of leached ashes and one bushel of salt to the acre, then sow from one and a quarter to one and a half bushels nice, clean wheat to the acre, plough it in with a double or single shovel plough, say three inches deep, and finish by rolling.

This mode of cultivation will not only destroy the sorrel, but will lay the foundation for a permanent improvement of the land.

After taking off the wheat, the stubble should be carefully ploughed under, and the land should receive another application of from thirty to forty bushels of lime to the acre, then harrowed and sowed in rye, and ploughed in to the depth of three inches, and finished with the roller.

Early in March, sow not less than one bushel of clover seed to six acres. About the 1st of May sow two-thirds plaster and one-third ashes. Leave your field lay in clover two years; when the clover is in full bloom the second year, plough it under, (the deeper the better,) and give your ground another dressing of fifty bushels of lime to the acre, and sow it in wheat again. The increased crop of wheat will not only fully remunerate you for all of the cost and trouble of applying the lime, plaster, ashes and clover seed, but the improvement to the land will not be less than one hundred per cent. By this system of cultivation, carefully and steadily persevered in, our young farmers will not be driven from the scenes of their childhood and the homes of their fathers, by sorrel and briars, by barren and unproductive fields, to seek new homes in the far west.

Not being an Agricultural Chemist, I can give no scientific reason for anything I have stated in this communication. My information is derived from my own practical experience. If any farmer will think proper to follow the advice thus given, I feel well satisfied he will lose nothing by it. I could suggest other methods for destroying noxious weeds and renovating worn out soils, but they would be so expensive as to be beyond the reach of farmers in ordinary circumstances. The great objection I find to most of the remedies that are given in our agricultural papers to resuscitate our worn out lands, is the great expense attending their application. Few farmers in this country have the pecuniary ability to indulge in experiments with guano, bone dust, &c., &c. None of them, however, should feel it too expensive to try lime. My opinion is, and it is made up from practical experience, that lime is the foundation on which all permanent improvement of our old land must rest;* without its presence in the soil, nothing substantial, enduring and advantageous can be

* No doubt of it.—Ed.

expected. Guano cannot be bought in Cumberland at much less than sixty dollars the short ton. Some few of our most wealthy farmers have used it in small quantities, even at this exorbitant price, and, in most instances, with satisfactory results; I tried it myself, a few years ago, with corn in the hill, but with no perceptible advantage; the ground was good and the season fine. Last fall I sowed a few hundred pounds on the poorest spot of ground on my farm—a spot (being less than an acre,) on which I had never obtained one half of the seed I had sown; on this poor spot I determined to try the virtues of Peruvian Guano. I bought about three hundred pounds. The ground was ploughed when I got the guano; I sowed it broadcast, and ploughed it under to the depth of from seven to eight inches; I then harrowed my ground, sowed my wheat, again harrowed and cross harrowed. I have just cut the wheat, and I am perfectly satisfied that the yield would have paid me all expenses, had not the severe frost of the night of the 30th of May nipped it in the blossom. All of the wheat and rye in the valley in which I reside, that was in blossom at the time of the frost, was almost entirely destroyed. A field on my farm which I had greatly improved with lime and clover, presented the finest prospect I had ever had for a heavy crop, but the frost did not leave me more than about one head in four.

J. M. B.

MR. HEWLETT'S FARM—RESCUE GRAES.

To the Editors of the American Farmer.

I have been very much interested with the recent issues of your Journal. Your articles on composts, pea fallows, &c., are particularly applicable to Southern Agriculture; your notice of Mr. Hewlett's farm also well timed, furnishing a fine model. Please tell us the amount of labor employed, hands, team, &c., and how he treats his hogs: they are very troublesome stock to me. I purchased one gallon of Rescue Grass Seed in 1854, drilled it in rows 20 inches apart in my garden, early in September, and worked it several times during the Fall; it stood the Winter well, (attracting some attention of the Partridges and Hares,) and was cut 20th of May 1855, yielding over 4 bushels of seed; it headed quite low, and was cut by hand. The seed shed in savingsprung up very thickly the following Fall, but looked very badly during the first part of the Winter, and did not grow broadcast as it had done in drills, headed very low, and was cut by hand June 10th, 1856, yielding about 2 bushels of seed. Some few bunches of clover in the square grew very luxuriantly, much more so than the Rescue Grass around it. Two bushels of the seed, gathered in May, 1855, was sown in June, along with peas—they did not come up. A small lot was sown in November, 1855, along side of some rye; it did not stand the Winter so well or grow so rapidly as the latter, headed very low, not over 3 inches high, and was not cut; the turkeys were driven on the lot but would not eat the seed.

I have tried it sufficiently to satisfy myself that it is not a Winter grass; it heads very low, is saved with great difficulty, and I have not yet found out any great value it possesses, though I shall continue my experiments. The grass is very soft, and nice for under beds, and the yield of seed very great under favorable circumstances, but they are very light, and consequently not very nourishing.

A SUBSCRIBER.

King William Co., Va., July 15th, 1856.

THE BERKSHIRE PIG.



IMPORTED HAMPSHIRE SWINE.—Peyton Johnston, Esq., of Richmond, Va., has just imported a boar and two sows of the Hampshire breed of pigs, which have arrived safely, and given much satisfaction to the spirited importer. Mr. Johnston intends crossing them with the Chester breed, but will also keep the pure Hampshire breed distinct. We are favored with the following copy of a letter from Mr. Pearce, who selected the pigs in England for Mr. Johnston, giving a history of this and other favorite breeds. We regret we have not a drawing of the pigs, to accompany the description:—

"May 21st.—Shipped three pigs—one boar and two sows. Boar and one sow white, without a black hair; the other sow is black. Breed—the real Hampshire, properly speaking, the improved Hampshire. These hogs were raised on the Duke of Beaufort's estate, in Gloucestershire, and can easily be fattened to 25 or 30 scores; but being of small bone, can be fattened to 15 scores with comparatively little food. In many parts of England, the improved Berkshire are raised. They are generally black, prettily made, the hair rather coarse, and are a profitable sort of pigs, and, being hardy, can stand the cold well. Whoever travels through Hampshire, and looks into the farm yard, will see some excellent hogs, generally black, but sometimes white, and middle sized, with rather a short snout, but compactly made: they are a modification of the old large sized Hampshire stock, individuals of which, in former days, were of huge magnitude, and some were carried about for exhibition. This colossal breed is now seldom seen, but it had its good points; when fattened (and time and much food were required to effect this), it returned, by way of repayment, a weighty carcass. The present Hampshire hog is compounded of the old race and the Essex, the Chinese and the Neapolitan, with an admixture of the improved Berkshire.

The improved Berkshire hog belongs to the tribe of large swine, or perhaps rather did, for well as we know Berkshire, we have not observed, for several years, any individuals approaching what may be termed an outstanding size. Formerly, hogs of the pure breed were often found to weigh from 100 to 120 stones of 8 lbs., and one hog, bred at Petworth, measured 7 feet 7 inches, from the tip of the snout to the root of the tail; 7 feet 10 inches in girth, round the centre; 5 feet round the neck, and 2 feet across the span of the back.—Height, 3 feet 9 inches. This animal was a moderate consumer of food—his allowance being about two bushels and six gallons of ground oats, peas, and barley per week.

The present Berkshire breed, as we have seen them, are moderately sized, roundly made, short in

the limb, and with an arched neck, with heavy cheeks, sharp ears, an abruptly-rising forehead, short in the snout, well barrelled, broad backed, and clean in the limbs; some are sandy colored, or whitish, spotted with black, or half white half black, a coloring indicative of the Neapolitan and the Chinese, as well as the Suffolk strain. The new breeds now to be seen in Berkshire, are but thinly clothed, and are said to be somewhat tender, compared with the old breed.

Around Henly, in Oxfordshire, on the banks of the Thames, and about Dorking, in Surry, cross breeds of the Berkshire strain prevail; but the improved Essex breed is held in great estimation.

Lincolnshire is one of the counties noted for an excellent breed of pigs. The old race were gaunt, slow feeding, unprofitable animals, with heavy heads and flat sides; but the improved breed of the present day are well formed, of moderate size, easily fattened, and produce excellent flesh. They are white, with fine skins, and sparingly covered with bristles, which are slender; the ears are erect and pointed, the body long, straight and round.

Norfolk produces excellent pigs, somewhat smaller than those of Lincolnshire.

Suffolk, now noted for its improved breed of pigs, formerly possessed only a coarse, lank, thriftless stock; but this has given place to a mixed race, admirable for symmetry, and quick and early fattening. They are a cross of Suffolk, Berkshire and Chinese. The animals are rather small, but compact, short legged and small headed. The body is round, and they fatten readily. At the age of a year, many are found to weigh from 12 to 15 score, and make first rate bacon. [A score is 20 pounds.]

The improved Lincolnshire is much valued in Suffolk, as is also the improved Essex breed, established by Lord Western. In the margin we have the following: Essex produces excellent pigs; of these, the most noted are Lord Western's improved breed. Sussex once boasted of a gigantic race of hogs, known by the name of the Rudgwick breed, but they have disappeared.

Remarks.—The question is, now, which of the former breeds are best. In cases of the former immense breed of hogs, the question comes,—Was it profitable—was the repayment of food and time in a just ratio? The answer must be,—quick fattening, even with a smaller carcass, is much better for the farmer than a larger outlay of time and food, to obtain a larger carcass. Slow feeders, however weighty the carcass at last, will not be found profitable, when all the expenses are calculated.

I consulted with Messrs. Gale, Woodward and Golding, and they kindly furnished me with the pigs forwarded—of the purity of the breed of which, you may rely. Inform Mr. Johnston that size is not taken into consideration, so much, now, as symmetry, fineness of bone, and probability of early fattening. Let me not forget to say, the boar and sows are of entirely distinct litters. Mr. Gale furnishes the boar, and Messrs. Woodward and Golding the sow pigs.

MODE OF KEEPING PIGS IN MEXICO.

"Fine breeds of these useful animals are kept by many persons of wealth as an article of trade, in the city of Mexico; and the care and attention paid to their cleanliness and comfort, so far ex

ceed any thing I have seen elsewhere, that a short account may be useful by furnishing hints to our farmers, brewers, distillers, &c., by whom large numbers of these could be, and are conveniently kept. The premises where the business is carried on are extensive, consisting in general of a good dwelling house, with a shop, slaughter-house, and places for singeing the pigs, large bowls for rendering the lard, salting and drying rooms, and lard-rooms, with wooden bins for containing the rendered fat, which is an article of great consumption in Spanish cookery, being used as a substitute for butter. There is also a soap manufactory, in which the offal fat is manufactured, and apartments where the blood is made into a kind of black-pudding, and sold to the poor. Behind all these are the sties for the hogs, generally from eight hundred to one thousand in number, which occupy a considerable range of well-built sheds, about thirty feet deep, with the roofs descending very low, and having the entrance through low arches, before which is an open space, the whole length of the yard, and about twenty-four feet wide, in the centre of which is a kind of aqueduct built of stone, and filled with clear water, supplied from a well at the end of the premises. The hogs can only put their noses into this water through holes in the wall, which prevents their dirtying it, as it passes through the whole division of the yard. This is the only liquid given them, and their food is maize or Indian corn, slightly moistened, and scattered at stated hours on the ground, which in the yard, as well as the place where they sleep, is kept perfectly dry and clean. They are attended with every possible care. There is a cold bath on the premises, which they are obliged frequently to use, as cleanliness is considered essential to their acquiring that enormous load of fat from which the principal profit is derived. Their ease and comfort seem also in every respect to be studiously attended to; and the occupation of two Indian lads will cause a smile on the countenance of my musical readers, when they are informed that they are employed from morning till night in settling any disputes or little bickerings that may arise among the happy inhabitants of the community, either in respect to rank or condition, and in *singing them to sleep*. The boys are chosen for the strength of their lungs, and their taste and judgment in delighting the ears, and lulling the senses of this amiable harmonic society; they succeed each other in chanting during the whole day, to the great delight and gratification of their bristly audience, who seem fully to appreciate the merits of the performers."—YOVATT ON THE PIG.

DISEASE AMONG THE HOGS.

A correspondent of the *Prairie Farmer*, says:

"A great many farmers at the West have lost hogs by a disease which they call the consumption. Hogs are troubled for want of breath, lose their appetite, and finally become so poor and weak that they cannot get up. Shortness of breath and starvation are the only symptoms of the disease. None ever recover, although some live months after being seized. The disease has been confined chiefly to hogs fed principally on corn ground with the cob and fed in the dry state, leaving the hogs to go to the trough and drink water with the cattle when they needed it. What is the experience of farmers further east on this subject?"

In the April number of the *Genesee Farmer*, we alluded to a somewhat similar disease which had made sad havoc among the young pigs in this neighborhood. It was thought by some farmers that the disease was produced by over-feeding the sow; and at the request of our friend, Mr. Hobbie, of Irondequoit, we wrote to Col. L. G. Morris, asking him to give us some account of his method of managing breeding sows. We have received the following reply:

MOUNT FORDHAM, May 10, 1856.

JOSEPH HARRIS, Esq.—Dear Sir:—Yours of the 6th is received. Sows carrying their young should be well fed, but not over fed—just so as to keep their condition neither fat nor thin. Six weeks previous to the time of dropping their litters, they should be kept alone, in a good, dry pen, so as to become well-settled in their apartments and bed, and get a home and settled feeling. A week before the pigs are to be born, she should be fed rather lighter than previously; and after the birth, she should have some cold water and some ears of corn, to allay her hunger and thirst, but not so much, nor such kind of food, as to increase her supply of milk too rapidly, until after the little ones have got the milk fairly going; after which, increase the feed as the pigs increase their demand for it. Very little bedding should be kept under the sow, one week previous to pigging, and until after the pigs get strong enough to extricate themselves from entanglement in the straw, by which means they may be laid over and killed by the mother. Kind and gentle treatment should always be used at all times and under all circumstances, so that the mother and pigs are never frightened and startled suddenly by those that are in charge, or lookers at them.

I have gone more into detail than was necessary or required. I remain, yours truly, &c.,

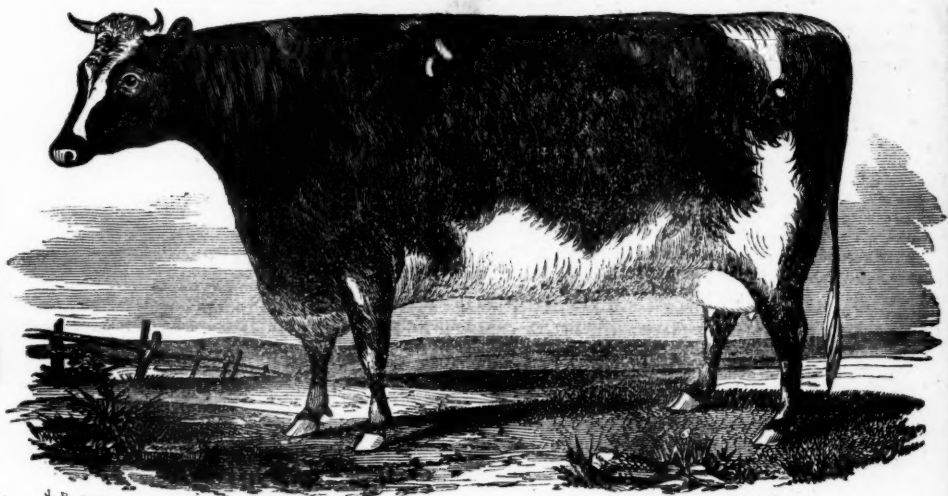
L. G. MORRIS.

PERU.—As the relations of this country with the United States, are interesting at this time, we will from time to time publish such facts as may be deemed of importance. It has been heretofore remarked, that the country was in a state of anarchy. By a recent arrival, as we learn from the *N. Y. Herald*:—"The national Convention continued its session, and, on account of the fever prevalent in Lima, it had removed to the bathing place of Chorrillos, together with the government, but not before increasing the members' daily allowance from eight to twelve dollars each. A law of complete amnesty has been issued, ordering the ranks of such persons as served under Gen. Echénique's administration to be recognized, granting them pensions, and also awarding such military pensions as the law allows to the widows and children of those who perished in defence of the government during the late campaign. All the stupid decrees of the provisory government are therefore annulled.

"But, at the same time, fresh extraordinary powers for six months have been accorded to Gen. Castilla, strengthening his dictatorship with authorization to imprison persons, search private dwellings, suspend the functions of judges, &c. Some military disturbances had taken place in Chincha and Chiclayo, but they had been put down.

"However, revolutionary attempts continued to burst forth, and no confidence was reposed in the stability of the present state of things."

DONNA MARIA 3d.—SHORT HORN COW.

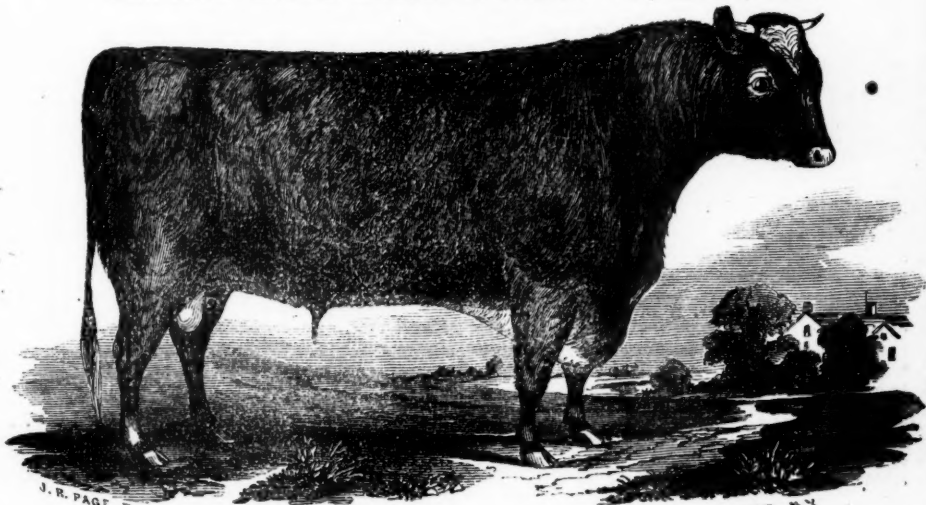


J. R. PAGE DEL.

H. ORR NY

Red and white; bred by, and the property of T. P. Remington, Philadelphia; calved August 10, 1850; got by Belvidere (A. H. B., 244); out of Donna Maria 2d, by imp. Yorkshireman (A. H. B., 189); imp. Donna Maria, by Buckingham (E. H. B., 1755); Lucky, by Corinthian Tom (921); Lady, by Young Dimple (971); Lady, by Young Comet (905); Cherry, by Favorite; Old Cherry, by Gold-finder, (1075.)

SECOND LORD BARRINGTON. (A. H. B., 955.)



J. R. PAGE DEL.

H. ORR NY

Red and white; the property of T. P. Remington, Red Leaf, near Philadelphia, Pa.; calved Oct. 24, 1852; got by imp. Billy Pitt (9967); Lady Barrington 12th, by 4th Duke of York (10,167); Lady Barrington 8th, by 2d Duke of Oxford (9046); Mr. Bate's Lady Barrington 5th, by 4th Duke of Northumberland (3649); Lady Barrington 3d, by Cleveland Lad (3407); Lady Barrington, by a son of Mr. Mason's Herdsman (304); Young Alicia, by Wonderful (700); Alicia, by Alfred (23); by Young Favorite (6994.)

BREEDING OF STOCK.

[From "The Rural Cyclopaedia, or a General Dictionary of Agriculture, and of the Arts, Sciences, instruments, and practice, necessary to the Farmer, Stockfarmer, Gardener," &c., Edinburgh, 1854."]

[CONTINUED FROM PAGE 28.]

"In the present state of improvement, however, no man requires to pass through the progress of breeding, from a low to a prime condition; nor even while modern improvement was advancing, did any one man pass through the whole of that progress. Mr. Dickson's suppositious breeder is an impersonation of several or even most of the enterprising men by whom a chief portion of the existing improvement in breeds has been achieved. Any one man has, in general, but a limited range of experience, and both learns from the operations of his neighbors, and takes advantage of the achievements of his predecessors. Yet, though the alleged facts in Mr. Dickinson's delineation are not imaginary—though for example, the breed which he represents as having been brought to the highest degree of perfection, is the short-horned, and its degeneracy is indicated by pursuing the breed too near akin—the principles embodied in his sketch, particularly those respecting the effects, and the alleged necessity of crossing, are very far from being undisputed.


The general object of improved breeding, is to diminish or remove the defects of live stock, and to acquire and perpetuate desirable properties; the general art is to make such a selection of both males and females as is most likely to promote the object; and the general principle is the governing law of the animal kingdom—the very obvious, yet much forgotten maxim,—that like produces like, or that every variety, as well as species of animals, propagates its own kind. The simple observation, that domestic animals produce a progeny exactly similar to themselves, formed the basis of all the proceedings of our first great modern improvers of British live stock. *Bakerell*, in particular, inferred from this observation, that, by bringing together a male and a female, both possessed of one set of good properties, he should obtain these properties, perhaps in an increased degree, in their offspring,—and that by propagating from males and females of the same properties through a series of generations, he should eventually establish a breed possessing these properties as a permanent and distinguishing characteristic. When he carried this process into effect, and found it to be successful, with respect first to his long-horns, and next, to other breeds of cattle, the term "blood" began to be used as a designation of it; and, in all subsequent periods, whenever a breed with any valuable characteristic can be referred to a number of ancestors of admitted excellence, this term is currently and emphatically applied. The principle of the improving process—that every variety of domestic animal propagates its own peculiar properties—is the pervading law of all scientific breeding, holds true with regard to both the male and female, and extends, not only to constitution, shape, and organic peculiarities, but to nosological tendencies and habits, and to almost every property, no matter how minute, which affects an animal's economical adaptations and market value. The exceptions to this law—even in spite of the seemingly dull and unimaginative character of the cow, the ewe, and some other domestic animals—are only such as arise from

the occasional ascendancy of the mental power over the organic operation, and like the vastly more frequent exceptions in the human subject—more frequent, perhaps, in the very ratio of the superiority of the human mind to the brutish—must be wholly ascribed to the play of imagination. "One of the most intelligent breeders I ever met with in Scotland," says Mr. Boswell, "told me a singular fact with regard to what I have now stated. One of his cows chanced to come in season while pasturing on a field, which was bounded by that of one of his neighbors, out of which an ox jumped, and went with the cow until she was brought home to the bull. The ox was white, with black spots and horned. The cow's owner had not a horned beast in his possession, nor one with any white on it; nevertheless, the produce of the following spring was a black and white calf with horns." A still more remarkable instance is familiar to most readers of sacred scripture, as having occurred in the pastoral history of Jacob. Yet notwithstanding all such exceptions, the tendency of each variety of domestic animals to propagate its own peculiarities, down to even the minutest point, it is so prevalent and powerful as to be strictly a law, and perfectly accounts, not only for all the successes, but also for all the failures, and for most of the apparent anomalies, in the progress of breeding improvements. "Let it be supposed," remarks *Youatt*, "that the cattle of a certain farmer have some excellent qualities about them; but there is a defect which considerably deteriorates from their value, and which he is anxious to remove. He remembers that 'like produces like,' and he looks about for a bull that possesses the excellence which he wishes to engraft on his own breed. He tries the experiment, and, to his astonishment, it is a perfect failure—his stock, so far from improving, have deteriorated. The cause of this every day occurrence was, that he did not fairly estimate the extent of the principle from which he expected so much. This new bull had the good point that was wanting in his old stock; but he too was deficient somewhere also; and, therefore, although his cattle had in some degree improved by him in one way, that was more than counterbalanced by the inheritance of his defects. Here is the secret of every failure,—the grand principle of breeding. The new-comer, while he possesses that which was desideratum in the old stock, should likewise possess every good quality that they had previously exhibited—then, and then alone, will there be improvement without alloy."

Three of the good properties, or "points," as they are technically called, which breeders desiderate in all the species of live stock, are rectangularity of shape, robustness of constitution, and tendency to rapid attainment of maturity. Rectangularity of shape is not understood with literal exactness, and never supposes the total absence of curvature, or the absolute filling up of the angles, and is more remotely exemplified in some species than in others, and in some good varieties than in others; still, it constitutes an excellent abstract model, and distinctly indicates the development and novelties of form which are requisite for making increasing approximations to perfection. The rectangle of the side figure of each animal is a parallelogram, and excludes the head; and that of both the front figure and the head figure is not far from being a square. A full-grown

ox of prime breed fills the rectangular angles better than any other form of cattle on a farm; and a fat ox fills them better than a lean one. A Leicester tup with full wool fills them better than a tup of the same breed newly clipped. The gelding fills them better than any other form of the horse. But the hind view of the horse, unlike that of the ox, is always broader than the front view; and the hind view of the female is broader than the hind view of the male. Robustness of constitution implies good appetite, healthy digestion, freedom from tendencies to disease, great power of endurance, sturdy health, steady growth to maturity, and facile ability of performing the offices which belong to the particular animal in the economy of the farm; and it is indicated by very numerous features in each animal, and by very diversified ones in different species. The principal organs or parts of the body, particularly the lungs, the chest, the pelvis, the head, the neck, the muscles, and the bones, must be carefully considered in order to secure the possession, and the due balance of the desirable properties. The comparative largeness of the lungs determines the comparative strength and health of the whole constitution,—it determines, in particular, the comparative power of taking up nourishment from food, and the comparative facility and rapidity of fattening; and it is therefore of very great importance, and is itself determined, or rather indicated, by the external form and size of the chest. The capacity of the chest depends more on its form than on the extent of its external circumference; for it may have an equal circumference in two animals, and yet enclose much larger lungs in the one than the other. The form of a truly capacious chest, containing large and powerful lungs, approaches the outline figure of a cone, and has the apex of this figure situated between the shoulders, and the base of it situated towards the loins. A capacious pelvis, or lower cavity of the abdomen, is essential in a female, in order to avoid danger to both herself and her offspring in the production of her young; and it is indicated chiefly by the width of the hips, and the breadth of the space between the thighs. The breadth of the loins is always proportionate to that of the chest and the pelvis. The comparative smallness of the head facilitates parturition, and generally indicates superiority of the breed; and a head with small horns, or with no horns whatever, occasions considerably more economising of food than a breed with large horns. The length of the neck, ought, in order to permit an easy collecting of food, to be proportionate to the animal's height. The muscles and the tendons, in order to permit the animal to travel or work with ease and power, ought to be large. The bones as compared to the muscles, ought to be small; for not bones but muscles are the seats of strength; and large bones generally indicate imperfection in the organs of nutrition.

[TO BE CONTINUED.]

 We cannot undertake to advise our correspondent at Louisville, as to the best method of converting the offal of pork houses into a merchantable article. That a very valuable manure can be made out of the material, there is no doubt. But it is worth his while to get the advice of a good practical chemist, and have the manure made under his immediate direction.

COWS FOR THE DAIRY.

There are certain points in a milker, that can hardly be mistaken. She should be descended from the best milking stock; her head should be small or of medium size, muzzle fine and nostrils expanded and flexible; face long, slender and dishing, cheeks thin; eyes full, mild and prominent; horns delicate and waxy, and they may be either branching, lopped, crumpled or hornless; long, thin, lively ear, and the inside of an orange color; neck thin and small at its junction with the head; deep chest, but not too heavy before; back level and broad; well ribbed; belly large; low flank; wide thighs, but thin; short legs, and standing well apart; large milking veins; loose capacious udder, coming well out behind; good teats; loose mellow skin, of a deep yellow; and a fine, thick coat of glossy hair; and she must be of a good disposition, and perfectly free from tricks.

Yet, with all the skill of a well-practiced taste in the selection of animals, the dairy-man will frequently find his theories and results at sad variance. One may sometimes select a fine animal, with every appearance of good milking qualities, which is but a medium cow at the pail; another, that hardly seems worthy of notice, and which sets at defiance many established milking points, and all preconceived notions of symmetry, may yet be a good milker. A cow that runs to flesh, while in milk, is generally an indifferent animal for the dairy. Perfection in a cow consists in converting all she eats into milk while yielding it, and when dry, in turning all she consumes into valuable meat.

R. L. ALLEN.

HINTS IN FEEDING MILCH COWS.—Thompson, in his work entitled "Experimental researches on the food of animals," says that the cow, if fed for two days on an insufficient quantity of food as indicated by loss of weight, and diminution of milk, will require at least double that time to reach the condition from which it deteriorated, and the reason of this is obvious, because the partial starvation has caused it to lose a portion of the substance of its body, which requires a longer time to re-establish than to pull down.

This rule, he says, is applicable to the dietary of men as well as to inferior animals. An increase of labor should always be accompanied with an increase of food, both at sea and in prison. A short walk, for one confined in a solitary cell, calls for some augmentation of food. A slight increase of temperature, or the irritating influence of insects, will effectually diminish the milk of a cow, and indicates the propriety of increasing the amount of fodder.

During his experiments on feeding milch cows, he found that the milk of one day was derived from the food eaten the day previous, and that it takes at least sixteen hours for the digestive organs of the cow to fully take up all the nutritive matter which she feeds upon.

From Hanover Co., Va.—"Our crops of wheat are short in Eastern Virginia, except in a few localities—say three or four counties in the Piedmont District of our State. Fly, joint worm, chinch bug and drought, superadded to a hard winter, are the causes of the failure of the crop. The most of us are at a stand, and hesitating whether it will be a paying investment to purchase guano at current rates."

VARIOUS BREEDS OF HORSES.

The following description of the various known breeds of Horses, we copy from a very elaborate work, entitled "*The Rural Cyclopaedia, or a general Dictionary of Agriculture*," &c., published in *Edinburgh, Scotland*, 1854. We do so to afford our readers an opportunity of becoming acquainted with the characteristic traits and uses of the several breeds; and we deem the time opportune, as from the present high prices of horses, the present and increasing demand for them, the more extensive breeding of them, as an item of agricultural profit, may become an object worthy of consideration.

(Continued from page 359, vol. 2.)

SOUTH AMERICAN HORSES. The horse of the *Pampas*, or wild horse of *South America*, considerably resembles the Spanish horse, from which it has descended; it is often caught for the uses of man, and is easily tamed and disciplined, and speedily acquires an extraordinary and very sagacious subordination; it possesses great powers of endurance; and when ridden in a peculiar but somewhat cruel fashion, it carries a rider 60 or 70 miles without rest or pause, or journeys upwards of 100 miles at the speed of 12 miles in the hour. The capturing of the wild horse with the lasso—a strong plaited thong, half an inch thick, 40 feet long, slippery with grease, and having a running noose at the end—is performed by a well mounted *Gauche*, careering at full speed on the outskirts of a herd, and practising great dexterity and skill of action. "The lasso," says Basil Hall, "is thrown round the two hind legs, and as the *Gauche* rides a little on one side, the jerk pulls the entangled horse's feet laterally, so as to throw him laterally on his side, without endangering his knees or his face. Before the horse can recover the shock, the rider dismounts, and snatching his poncho, or cloak, from his shoulders, wraps it round the prostrate animal's head. He then forces into his mouth one of the powerful bridles of the country, straps a saddle on his back, and bestriding him, removes the poncho; upon which the astonished horse springs upon his legs, and endeavors by a thousand vain efforts to disencumber himself of his new master, who sits quite composedly on his back, and by a discipline which never fails, reduces the horse to such complete obedience that he is soon trained to lend his whole speed and strength to the capture of his companions." The horse of the *Pampas*, in both its native and tamed state, resembles the Arabian in having no intermediate pace between a walk and a gallop.

The horses of the *Mountains of Venezuela* are a singularly looking breed, of very diminutive size, and have the appearance not of ponies, but of miniature cart-horses. They have large shaggy manes, very rough coats and thick fetlocks, covered with long hair. They are never shod, nor are their hoofs ever pared, so that the horny part projects forward, in some instances nearly a foot in length. This gives the animal a most awkward appearance, and suggests the idea of people walking with snow shoes; yet notwithstanding this apparent incumbrance, they are very sure footed little animals, and considered equal to mules on bad rocky roads.

MEXICAN HORSES. The horse of the Mexican prairies has the same general ancestry as the horse of the *Pampas*; and possesses similar properties to it, both in a wild and domesticated state. It has a fine de-

licate head, wide nostrils, slender, tapering, clean limbs, small hard hoofs, and a symmetry of form resembling that of the Arabian. It occurs wild in large troops, not only in the savannahs and woods of Mexico, but so far north as the Rocky Mountains and the sources of the Columbia; and it is captured and disciplined by the North American Indians; but is less carefully managed, and possesses less valuable properties, in its domesticated state, than the horse of the *Pampas*. The *Osages*, in particular form large hunting parties, for chasing and capturing it, in its most northern haunts; and when in pursuit of it, they use relays of fresh hunting horses, till they have run down a wild herd.

The *CANADIAN* horse is supposed to be a descendant of the domesticated French horse; and it occurs not only throughout all the older parts of *Canada*, but in the northern parts of the United States. It is comparatively small in size, but is strong, hardy, patient, capable of great endurance, and a proficient in the pace of trotting. It will work amid the intense frosts of the Canadian winter, till it foam with sweat; and will then stand for hours, exposed to the intense frost, without sustaining injury; and will then, when fretted over with ice and icicles, good naturedly resume its labors.

The horses of the *United States of America* exhibit great variety, and belong to many different breeds and crosses. A long-legged, light bodied animal, called the *Connestoga* horse, sometimes 17 hands high, occurs in some of the Middle States, and is used chiefly for the carriage, [query, wagon]. The Mexican and Canadian breeds in some places of respectively the West and the North; the high bred English horse occurs in almost all the older States, particularly Virginia and Kentucky; and some of the most improved breeds of Europe have recently been introduced. *Almost all the good kinds of horses in the United States, are harder and less subject to disease than the corresponding kinds in Europe, and even the direct and pure breed descendants of pure European breeds are harder than their ancestors, and probably might strengthen the constitution of their kindred if they were introduced back to Europe.* "In most parts of N. America," says Mr. Winter, "fast trotting horses are esteemed above all others. It is the prevalent and fashionable method of testing the power of their horses; and certainly appears well calculated to establish propensities highly useful to the community. The more rapid pace of the gallop is rejected for the more useful one of the trot. The most remarkable trotters that have ever appeared in England were brought from the United States; amongst them may be instanced *Tom Thumb*, *Rottler*, *Rochester* and *Confidence*. The Americans properly attack our system of turf-breeding; they say we go for speed; and having aimed at this alone for half a century, and still continuing the practice, it will not be surprising, if we lose every thing else that is valuable."

The *SPANISH* horse was originally the same as the *Barb*; and it acquired its distinct properties simply from difference of climate and of treatment; and it long possessed a celebrity second only to that of the real Barb and of the Arabian. "The neck," says Berenger, "is long and arched, perhaps somewhat thick, but clothed with a full and flowing mane; the head may be a little too coarse; the ears long, but well placed; the eyes large, bold and full of fire; their carriage lofty, proud, and noble; the breast large; the shoulders sometimes thick; the belly frequently too full and swelling; and the loin a little too low; but the ribs round, and the croup round

and full, and the legs well formed and clear of hair, and the sinews at a distance from the bone; active and ready in their paces; of quick apprehension; a memory singularly faithful; obedient to the utmost proof; docile and affectionate to man, yet full of spirit and courage." The most valued kinds of the Spanish horse occur in *Andalusia*; and those next in esteem occur in *Estramadura* and *Granada*. But the climate of the greater part of Spain seems to be highly favorable to the breed; and near Aranjuez are a suite of royal stables of mares, for the purpose of maintaining the breed in the highest excellence.

(To be continued.)

TRAINING A BALKY HORSE.—In India, when a horse becomes stubborn and refuses to move, instead of whipping him, as is our custom, or setting fire to straw under his belly, as is sometimes practiced in England, a rope is attached to his foreleg, and one or two persons go ahead and pull at the rope. It is said this will start the most refractory horse. The *Michigan Farmer* says a horse became balky in Detroit a short time since, and neither whipping or coaxing could make him stir. A rope was fastened round his neck, and he was dragged a short distance by another team, but this did not effect a cure. The rope was then taken from his neck, passed between his legs, and fastened firmly to his tail. In this manner he was drawn a short distance, and when the rope was taken off, the hitherto unruly animal was perfectly obedient to the will of his master. We have seen this method tried, with similar results.

LETTER ABOUT "HUANO."

WASHINGTON, May 17, 1856.

The enclosed letter from Mr. Clay, the able and efficient Minister of the United States at Lima, may be interesting to the planters and farmers of Virginia. Will you give it a place in the *Enquirer*, as the best mode of bringing it before them?

Very respectfully, yours, J. M. MASON.

LEGATION OF THE U. STATES, }
LIMA, April 11, 1856. }

To the Hon. James M. Mason, &c., &c.

Dear Sir:—After endeavoring for several years past to obtain accurate information of the manner in which Huano is employed by the farmers (chaceros) in the environs of the city of Arequipa, which is the principal district in Peru where that manure is used in cultivating the land, I have been favored with the following statement. Knowing the great interest you take in the agricultural prosperity of our country, and of your native State in particular, I take the liberty of transmitting to you the result of my inquiries, which, though not very full, may nevertheless be useful to the planters and farmers who manure their lands with huano:

"Huano is brought from the Chincha Islands to Islay, and there sold to the chaceros (Farmers) round Arequipa, and is there sold at from four to six reals (50 to 75 cents) the fanego. The fanego weighs five arrobas or about 125 lbs. The price varies from 4 to 6 reals; the latter price is asked at present. This would make the English ton worth about \$13, or say £2.10 in Islay.

"It is applied to *two crops only*—Indian corn and potatoes—carefully by the hand.

To Indian Corn, when the plant is about two

months old, and, say, 24 inches high. One half handful is applied near each root—a large quantity is said to be prejudicial by 'burning' the plant.—The huano is then covered with earth, and a small quantity of water applied by irrigation to 'fix the huano.' If the state of the soil does not absolutely require it, no more water is applied until after six or eight days.

"The quantity calculated for each topo of 5,000 square vares, say 1½ acres, is 4 fanegas, or about 500 lbs.

"For Potatoes, the quantity required is the same, and applied in the same manner as regards the age of the plant, and a small quantity of water 'to fix the huano.' The stalk of the potato is then about eight inches in height, and the earth heaped up in ridges, the same as in Great Britain. The laborer inserts a spade in the top of the ridge beside each plant, whilst a woman follows pouring a handful of huano into the opening thus made, and covers it up with earth; so that the ridge remains the same as before the application of the huano.

"To wheat, the application of huano is not approved of, principally on account of the rankness it produces in the stalk, thereby delaying the ripening of the grain—a point of great importance in a land where they count upon obtaining two crops in a year."

If huano should be used in the cultivation of tobacco in Virginia, I presume it should be applied to the plants after having been transplanted into hills, much in the same manner as potatoes are treated in the environs of Arequipa.

Should I succeed in obtaining any further hints, I shall take the liberty of communicating them to you; and if any inquiries should suggest themselves to you in relation to this subject, I shall feel great pleasure in answering them as fully as may lie in my power.

In the meantime, I remain, dear sir,

Very respectfully, your obed't serv't,

J. RANDOLPH CLAY.

EXTRAORDINARY TOBACCO BED.—Jno. Henry, Esq., of Charlotte Co. Va., gives to the Petersburg Southern Farmer, the following plan for preparing a tobacco bed:—On the 14th of April last I burnt and prepared a plant bed for tobacco plants in a rich glade in the forest, and on the 15th of April sowed the same, raking in the seed which had previously been soaked for 24 hours, and treading the bed. I then put on the surface a dressing of fresh stable manure dry, and covered it with brush. I put on afterwards dressings of dry rotted hen manure, and dry fresh stable manure, three different times. On the 16th of June, after a good rain, I took off the brush and drew from the patch the following supplies of plants for planting:

June 6th and 7th, 37,500 plants.

June 9th, 40,000 plants.

June 12th, 35,000 plants.

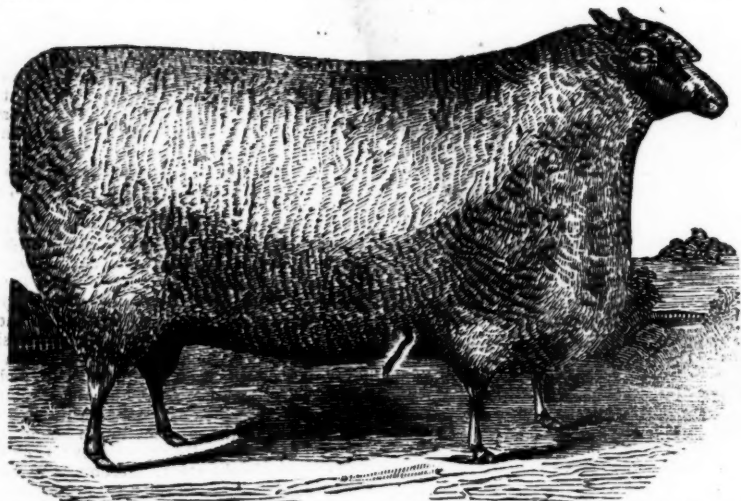
June 17th, 18,000 plants.

June 26th, 40,000 plants left in the patch.

170,500

No guano was used on the patch."

The English Agricultural Society has offered a purse of £500 for the best steam plough, no satisfactory invention of such a machine having yet been brought forward [in England.]



THE SHEEP OF GREAT BRITAIN.

LINCOLNSHIRE AND COTSWOLD.

The Lincolnshire is the largest breed of sheep in Great Britain. According to Ellis, the oldest agricultural writer by whom any description of them is given, they were "the longest-legged and largest-carcased sheep of all others, and carried more wool on them than any sheep whatsoever." For many years there was considerable rivalry between the breeders of Lincoln and Leicester sheep; the former, it was claimed, giving more wool of better quality, and the latter the most mutton. At length, says *Youatt*, a union was established between them; a Lincoln ewe was put to a Leicester ram, and the progeny certainly displayed, and to a very great and profitable extent, the excellence of the male parents. The wether attained its maturity a full year sooner than it was accustomed to do, and with less comparative expense of food even at that time; and when the ewe was drafted, she too was sooner ready to be sent to market, and weighed considerably more than she was wont to do, and was in higher repute and more readily sold.

Mr. CLARK, of Canwick, in 1827, exhibited two wether sheep in Lincoln market, the fleece of which had yielded each 12 lbs. of wool. They were slaughtered, and the carcass of the larger one weighed 261 lbs.; the four-quarters were each of them 73 lbs. and the hind quarters 57½ lbs. On the top of the rib the solid fat measured nine inches in thickness!

By judicious breeding, and by means of the improved system of turnip husbandry, and high feeding, the sheep are now rendered fit for market at one year old, and weigh from 80 to 100 lbs. each, on the average. When kept till two years old, they are very heavy. Thus, three slaughtered a few years since, aged respectively three, two, and one year old, weighed 386 lbs., 364 lbs., and 284 lbs.

COTSWOLDS.—The meaning of the name Cotswold, is a sheep-fold, and a naked hill or plain.—The Cotswold hills, the native tract of this ancient breed of sheep, are of moderate elevation, covered with sweet and nutritious herbage: and though formerly a bleak, wild, and uncultivated district, given

wholly to sheep walks, it is now enclosed, cultivated, and greatly improved. The sheep have also undergone a like improvement; so that they now rival the New Leicester in symmetry and early maturity, while they possess a heavier fleece and carcass. They have been crossed with the Leicester with decided advantage; their size and fleece being slightly reduced, but their tendency to fatten and early maturity, as well as the quality of the mutton, are much improved. They have also been crossed with the Hampshire Downs, thereby improving still more the quality of the mutton, but greatly reducing the weight of wool and carcass.

The experiments at Rothamstead show that for the food consumed the Cotswolds increase in weight more rapidly than any other breed.

The Cotswolds, especially in the Southern States, have been pretty extensively introduced into this country, and are yearly becoming more and more popular. There are a few in the Northern States and in the Canadas, and they stand the climate equally as well as the Leicester and South Down. They are known in some parts as the New Oxfordshire. Their weight of carcass and fleece has been well sustained in this country. Mr. *Rybold*, of Delaware has killed Cotswold wethers weighing 200 lbs. dressed, and they frequently weigh from 30 to 40 lbs. per quarter.

In England, the Cotswold is called the "poor man's" sheep, because their mutton can be produced cheap. In London, Cotswold mutton sells at from two to three cents per pound less than the South Down. But the Cotswold increases, for the food consumed, enough more to make up the less price obtained; and it is an open question which is the more profitable breed. In this country, at present, Cotswold mutton probably sells as high as South Down, and therefore Cotswolds must be the more profitable breed. The time, however, will come when consumers will be more discriminating.

QUANTITY OF WOOL FROM DIFFERENT KINDS OF FOOD.

We find in the London Journal of Arts of August 31st, 1855, a statement of the amount of wool pro-

duced by feeding weighed quantities of various kinds of food. The results given are from one set of experiments, and they probably vary materially from what might be obtained under other circumstances; still they are instructive:

1,000 lbs.	Pounds of Wool.
Mangel Wurtzell, raw, produced	5 1/2
Potatoes, raw, with salt	6 1/4
Oats, raw	10
Buckwheat	10
Barley	12 1/2
Rye, without salt	12 1/2
Rye, with salt	14
Wheat, raw	14
Peas	16 1/2

We have not the method of feeding the above in each case, which leaves the table a little imperfect. The difference in the result of feeding rye with and without salt is interesting. The superior value of peas might be looked for, from their chemical composition.

GUANO ATTACHMENT TO THE WHEAT DRILL.—

As there are conflicting claims to the honor of inventing and introducing into Virginia, this valuable addition to the catalogue of agricultural machinery, we render but an act of simple justice to a citizen of Virginia, by setting before the Virginia public, the following extract from the report of a committee of the Virginia State Agricultural Society, ascribing to him the honor of having originated this important and valuable implement.

The State Agricultural Society in its schedule of premiums for 1855, proposed to award "*honorary testimonials*, to each individual of Virginia, who, previous to 1854, has discovered, or introduced, or brought into use any principle, process or facility, or generally any improvement, by which important value has been gained for the agricultural interests of Virginia."

The chairman of the committee of award under this 8th branch of the Society's schedule, N. Francis Cabell, Esq. of Nelson County, Va. reported, 1st: That the Rev. Jesse S. Armistead, of Cumberland, is entitled to such honorary distinction for having "originally prepared" a "specific manure for tobacco, &c." an account of which is detailed in the report and will appear in the transactions of the Society. Reference is also made to a further account of it in the Southern Planter for April and June, 1853. The report then proceeds to award a similar distinction to Mr. Thomas F. Nelson, of Clarke, for his guano attachment, as the following extract will show:—*Richmond Whig*.

"2. On the first introduction of guano, and for some time afterwards, it was the general impression that this manure was so highly stimulating in its properties, as to destroy the germ of any seed-grain with which it might come in contact, when both were deposited in the earth. Mr. Thomas F. Nelson, a citizen of Clark county, by experiment, so early as 1849—and which was continued in subsequent years—satisfied himself that this was a vulgar error. As guano was also highly volatile, a further deduction was, that in the usual mode of its application there was a great loss of useful effect, much of it escaping without having contributed any thing to the growth of the plant; and that a less amount than was commonly used could be made to answer the end if placed in immediate proximity to the seed. With this view, he set about devising an

implement which should effect this purpose. He invented what he calls a guano attachment, which in conjunction with any one of the several drills that are now used for seeding wheat, may be made to deposit both guano and seed in regulated quantities and at the required depth—being the same which he has heretofore exhibited on the Fair Ground of this Society. Whatever claims others may have to the invention of a similar implement, the undersigned has had evidence laid before him abundantly sufficient to convince him, that Mr. Nelson was the first in that region, and perhaps in the whole State, to prove and expound the principle above mentioned, and that he was the independent inventor of an implement, such as we have described; and that its employment for the purpose suggested, has resulted in the more economical use of that costly article and with equal effect."

EXPERIMENT WITH GUANO AND SULPHURIC ACID.

An intelligent farmer of Prince George was induced last Fall, in accordance with the recommendation of Prof. Norton in his lectures on scientific agriculture, to try an experiment with guano and sulphuric acid, in the proportion of 100 lbs. of the former to 15 lbs. of the latter. The combination was effected simply by pouring the acid on the dry guano, and incorporating them together with a wooden implement. A spade or a hoe would be destroyed by the corrosion of the acid. This mixture was applied to an acre of land which was then sowed in wheat, while alongside the guano alone was used, at the same rate. The product at harvest is represented to have been fully twice as much from the mixture as from guano alone. Not anticipating such a result, no memorandum was preserved of the minutia and the progress of the experiment, and it is adverted to now chiefly for the purpose of inducing other farmers to repeat it in a more careful manner. It well deserves to be fairly tested. We have not Prof. Norton's work at hand, but it is understood that the value of the combination consists in the action of the acid on the phosphates of the guano, as in the preparation of bone, thus reducing them to a state immediately available for plant food—while no injury is caused to the ammonia. The acid may also, according to the theory of some gentlemen, supply a deficiency of that property in the soil which has been exhausted by repeated applications of alkalies. However this may be, we would respectfully suggest the propriety of making further experiments.—*Southern Farmer*.

SEED WHEAT.—We refer to an advertisement offering for sale some of the wheat described in our May number, raised by Mr. Pratt. We have samples of the wheat at our office, and from what we have been able to learn of it, believe it will be found a valuable variety. It is a smooth headed, bright white wheat, plump medium size berry, and it is said to have withstood the fly and other casualties, and to have given a very good yield.

WHEAT CROP IN VIRGINIA.—The *Richmond Dispatch* states that the wheat crop in that State is the most unequal grown for some years. It adds:

The ravages of insects have occasioned this. Some fields have been utterly destroyed, while very near them fields of the finest wheat have been reaped.—The crop on the whole is a short one.

AMERICAN FARMER.

Baltimore, August 1, 1856.

TERMS OF THE AMERICAN FARMER.

Per Annum, \$1 in advance—6 copies for \$5—13 copies for \$10—30 copies for \$20.

ADVERTISEMENTS.—For 1 square of 8 lines, for each insertion, \$1—1 square per annum, \$10—larger advertisements in proportion—for a page, \$100 per annum; a single insertion, \$15, and \$12 50 for each subsequent insertion, not exceeding five.

S. SANDS & WORTHINGTON,

Publishers of the "American Farmer,"

At the State Agricultural Society's Rooms, 128 Baltimore-st.
Over the "American Office," 5th door from North-st.

Meeting of the Executive Committee of the Maryland State Agricultural Society.

The quarterly meeting will take place on the first Tuesday in September, at 11 o'clock, A. M., at the Hall of the Society, in this city.

By order,
SAMUEL SANDS, Secretary.

THE ANNUAL EXHIBITION

OF THE

MD. STATE AGRICULTURAL SOCIETY,

WILL TAKE PLACE AT THE

SHOW GROUNDS, ON NORTH CHARLES STREET,

In the City of Baltimore,

On Tuesday, Wednesday, Thursday and Friday, the 31st, 32d, 33d and 24th October, 1856.

Copies of the list of Premiums, Judges' Rules, &c., as published in the American Farmer, for July, can be had at this office.

OUR AGENCY.—As we have received numerous letters from friends at a distance, enquiring if we continued our Agency this season for the purchase of guano and other fertilizers, we would say, that we will as heretofore furnish Peruvian, Colombian, Mexican and African Guanoes at the lowest selling rates in the city. Also any other manures, at the market price. Our friends may rely on receiving from us guano warranted pure as taken from the Peruvian Agency's ships or warehouses, or from the importers, for other kinds.

INCREASE OF OUR SUBSCRIPTION.—We return our heartfelt thanks to those of our kind friends who have responded to our appeal to add to our subscription list. We have received a number of new lists since the opening of our new volume, and many of our friends in remitting their subscription have forwarded the name of a new subscriber at the same time. We have room for a few more on our books, and we hope now the harvest is over, that those who have been too busy during the past month, will remember our claims upon them.

A PLAN FOR DIVISION OF THE FARM.

We heartily welcome to our columns our correspondent "Pomoukey," and none the less because he criticises our own doings and mis-doings. We could wish for the *American Farmer* a large number of contributors of like spirit and intelligence.

"Pomoukey" appeals to us with so much point and directness, that there is no evading him, and had we not the sure token of his good will that he sent for our new volume five new subscribers, we should be tempted to exclaim with the king, to whom Naaman was sent by the king of Syria "to be recovered of his leprosy,"—"consider, I pray you, and see how he seeketh a quarrel against me." He demands of us that we hold forth to our readers, and systematically teach "a settled and well defined plan of farming." He "insists" that a proper division of the farm is the "grand basis" "of profit and improvement," and assuming that we are possessed of a wisdom which we have not yet manifested, protests that he will "bring us out," and that we shall make a clean breast of it. He wants "the system of the *American Farmer*." We must lay down a certain fixed plan upon which all farms are to be divided and cultivated, or we must show that our friend makes an unreasonable demand of us. He will excuse us therefore, if we take the latter horn of the dilemma as the most practicable.

A "fixed," "settled," "well defined" plan of operations must depend upon a knowledge of all the circumstances in which the operator labors. It can only be fixed when the circumstances are fixed. It must vary with them, else it is a bad plan. Now, in the range of our circulation, can our friend begin to guess how various these circumstances are? Suppose we lay down a plan of division and cultivation which will suit the wheat grower; will that suit him who combines growing of wheat with the raising of stock? or will a plan that will suit the latter, be the best for a tobacco planter, or his for a cotton planter, or his for a hemp grower, or his for one who would keep a dairy? Our correspondent would not have us do as those chemists who take a dozen varieties of soil and mix them together to make an average of the field and use their appliances by the indications of such a sample. He would not have us make out an average plan and teach it systematically as the plan of the *American Farmer*, which must be followed implicitly by all who would farm well. It would be not only a plan of folly, but a plan based upon the very principles of quackery. It would spoil a system very well suited to certain circumstances, by vainly attempting to adapt it to all, as a medicine which might be valuable for one disease, loses its rightful character by an attempt to magnify it into a cure-all.

But confining ourselves to the circumstances which our correspondent seems to have had in

view, namely:—"A system for farmers in medium circumstances—who have to raise wheat, corn and oats, grass, hogs, horses, oxen, cows, milk, butter poultry, &c., and raise the land too." We might make out a plan which would be well suited perhaps to his case, and yet it might not, for obvious reasons, suit his very next door neighbor. A large portion of Maryland farmers have, within ten years past, decreased the number of their working hands and abandoned the culture of tobacco. They find it their interest to make crops such as wheat and corn crops, which require more extent of surface, but less labor. We might prescribe a very good rule for these, which to a man who has a moderate extent of land and abundant labor, would be radically wrong. His whole system must be different. He must apply his labors so that he may get larger returns from a smaller surface. In Charles county he should cultivate tobacco as a crop of that character, while to one within a short distance of a good market, we should advise potatoes or some other vegetable crop, the bulk of which would lessen its value where the transportation is considerable. Then again, speaking of stock, our friend says he must raise hogs, lambs, and calves, &c. It may be just so in his case, and yet whether his nearest neighbor *must* do so is a problem to which circumstances may give a different answer. If a man may supply himself at a moderate price, as many farmers may, with young oxen and cows just fit for use, it is not so certain that he must raise them. Nor is it *certain* that the raising of pork ordinarily pays cost. We know farmers of very good judgment who think the enjoyment of their own hams an expensive luxury.

As to cross-fencing, that too is a question of cost. We have no objection to the "venerable institution," *per se*, but we must not hold on to it, only because it is a "venerable institution." If "Pomoukey" has good fences, and plenty of material at hand to repair them, we should not advise him to pull them down. The doubtful profit of raising the stock, which he says he must raise, may compensate him. But we knew a farmer who hauled rails, worth \$30 per thousand on the ground a distance of some fifteen miles over a bad road, and made a worm fence at a cost of not less than \$2 *per panel*. Does our friend think that all the stock he can raise would justify such an expenditure? Might he not with greatly more economy provide a standing pasture, or even bring food into the yard for his necessary working stock, and have none unnecessary?

Does it not occur now to our friend that, to say nothing of agriculturists generally, the various circumstances which must modify the practice of individuals of even a limited class, make it impracticable to prescribe a general plan of cultivation?

Moreover, we wish distinctly to disclaim the

duty which he imposes upon us. We think it is one of the errors which has brought discredit upon agricultural literature, that editors and authors assume to teach too much. They undertake to instruct too particularly. They elaborate methods and details, when they should teach principles upon which others are to work.

Practical men see the folly of such assumption, and the inexperienced are misled by it. The lesson we desire to teach our young friends, above all things, is *to think for themselves*. We will furnish them through the *American Farmer* with material to work upon, but they must work it up into a fabric which will suit their own purposes. In making up a plan of operation, we would have them do as our correspondent has done, and *think out* a system for themselves. We never saw a successful man of business who made a habit of relying upon others for advice. Let him listen, let him read, let him gather opinions and consult practices, but let him rely lastly and solely upon his own good judgment. He can have no "well settled" plan until it is settled on this foundation.

While we are unwilling to chalk out a precise method for the guidance of our readers, we are not justly chargeable with withholding such help as we may properly afford them. If our friend will turn back as far as our June No. of 1855, he will find in an article headed "Alternation of Crops," the principles distinctly laid down, on which a proper rotation is based:—1st. The exhausting character of what are called *culmiferous* plants, comprising the various grains. 2d. The less exhausting character of the *leguminous*, or peas, beans, &c.; and 3d. The ameliorating nature of the clovers, the field pea, &c., which shade the land, gather nutriment largely from the atmosphere, or pump it from the sub-soil. Since that time we have been at pains repeatedly to urge the necessity of a system which would make a proper interchange among the different classes of plants. We have urged the great value of clover and pea culture, and given the best information as to its character and value, and recommended a more extended cultivation of grasses.

All this has been designed to enable those who had systems to establish, to build upon correct principles. The statement with reference to Mr. Hewlett's farming, with others we may give, is intended not to be implicitly followed, but to show how one judicious, intelligent farmer has applied the true principles of rotation in successful practice. We call upon our correspondent now, to give our readers the system which he has concluded upon with so much difficulty, and the ground of his conclusion. We are not inclined to lay down dogmatically what we may think as to this or that man's practice, but rather to have farmers give in their experience through our pages, and consult and advise with one another. The question of the

best rotation is a very important one, and we shall be very happy to throw upon it all the light we can.

But in conclusion, let us suggest to our young friends, that while it is important to have a good system, let them beware of too much facility in changing their plans. Stand fast to a tolerable system, and work it out skilfully, modifying and improving it by degrees, but beware of frequent change of plans.

THE USE OF CAPITAL IN FARMING.

In our comments upon the letter of "Pomoukey" we passed over, for fear of making too long an article, a point which is worthy of separate consideration.

Speaking of Mr. Hewlett's farming, he says, "Gentlemen with full purses can spend and improve to suit their fancies, but their example is more to be admired than followed." We know that this sentiment will be freely echoed. "It is all very well for those who have money." "It is all fancy farming." Now, why, we ask, is an example to be admired and not followed? The question is, does this spending of money pay? Does it pay better than a system which spends no money? We held it up as an example to show, among other things, that under judicious management in other respects, money may be extravagantly laid out in manures, and pay a larger interest than any other investment that can ordinarily be made.

One field of eighteen acres of Mr. Hewlett's farm had produced upon twelve acres, just previous to his purchase, eight bushels of wheat per acre; the other six acres, a blowing sand, was thrown out as unfit for cultivation; an attempt to make a crop of rye upon it, resulting in the loss of the seed. The crop, therefore, would show an average for the whole eighteen acres of a fraction over five bushels per acre. In corn, it would not have exceeded three barrels, and the grass would have been nothing. Upon this field Mr. H. expended seventy dollars per acre, in lime, bones, guano and peas. His first crop of wheat under this treatment was forty-two bushels per acre, (the land being surveyed and crop measured) or an average excess of thirty-seven bushels over the previous average, worth in money, say fifty-five dollars, besides the excess of straw. And this makes no estimate of the difference in the quality of the sample. The intrinsic value of the crop from rich land being perhaps twenty per cent. per bushel above the other. Then for three successive years, there was a crop of hay of one and a half tons, worth, say twenty-two dollars and a half yearly, or sixty-seven fifty for the three years. The next year he got fourteen barrels of corn per acre, or an excess of eleven barrels over what it was capable of before; the excess being worth at three dollars, thirty-three dollars. Putting the increase of fod-

der and straw to the increased expense of securing crop, there is left for excess of wheat per acre, fifty-five dollars, for hay sixty-seven fifty, for corn thirty-three, or one hundred and fifty five dollars and fifty cents, the result of seventy dollars' worth of manure, and a large remainder left behind in permanent improvement of the land. Now, we ask our friend, does it pay? Is this fancy farming, to be admired but not followed? It is worthy to be noted in passing, that Mr. H. has learned from his subsequent experience, that he put twenty-dollars worth of lime upon this land, beyond what it required at that time. He believes that an expenditure of fifty dollars in all, would have produced the same results.


But, says our friend, "farmers have to work for their money before their money can work for them." We understand the force of this remark. We know that it represents pointedly the condition of a large number of cultivators, men who have poor farms, and the means of working them, and nothing more. Who toil on from one year's end to another, and must content themselves if they "make both ends meet," as the saying is. We can heartily sympathise with all such, and wish them a better fortune. Untiring industry, prudent economy, and discreet management, will supply in some degree the want of ready money, and in time, perhaps afford better means of improvement.

But let each man look to it, that he does not set that down as a misfortune to be submitted to, which is only a fault to be corrected. We are too prone to throw upon our evil stars the blame which belongs to our mistaken selves. How does it happen that so large a proportion of farmers find their affairs in the condition described? It is not altogether accident or inheritance, but with much the greater part we think, *choice*. A choice which is the result of want of confidence in themselves, and inadequate ideas of their business.

A plant is the result of certain conditions working together, all of which are necessary to the result, just as truly as a house is the result of a combination of certain materials, all of which are necessary to the result. For the plant, water and atmosphere being every where present, the essential conditions which man must supply, are the soil to stand upon, the cultivation and stirring necessary to enable the roots to seek their food, and the food itself. In building a house, he must supply stone and brick and timber and mortar and nails, and the labour to put them together. But suppose he should buy the stone and brick and timber, and hire labour to put them together, and that his money is gone, and he must dispense with mortar and nails? should we pity his misfortune, or condemn the folly which had made so unwise a use of his means? And except that this is the smaller folly, where is the difference between this man, and him, who spends, say twenty

thousand dollars in buying land for his plants to grow upon, and servants and cattle to cultivate it, but finds his investment a source of toil and trouble, and lying idle as to profit, for the want of a small sum to furnish abundantly the *food* which is as necessary to the plant as the nails and mortar are to the house? Now, we would like to see the farmer, (and if any one else has seen such, we would like to see him) who, in purchasing an estate with servants and stock, has so dispensed his means as to leave a thousand or two, or three thousand dollars, as the case might require, for the purchase of manures. "Gentlemen who have plenty of money" do this, but farmers never. And it is not because these gentlemen have a plenty of money, but because being divested of the habits of thought, which stick too closely to farmers, and being trained usually as thorough business men, they have the shrewdness to see the necessity of this outlay, for the purpose of keeping the mass of their investment in active operation.

We are not willing to conclude this subject without a word of draw-back and caution. We have known earnest young men, and men of more discreet years, stimulated to unwise expenditure, under such statements as we have here presented, and failing of their anticipated results, we have known your "safe old fellows" shake their wise heads at the folly of "book-farming." Let us not be misunderstood therefore. We speak of high manuring as *one* of certain conditions, *all* of which are necessary to the successful growth of crops. If a house may not be built without nails and mortar, much less can brick or stones or timber be dispensed with. So proper manuring may be very necessary, but it cannot without judgment in management, skill in details, a sufficient supply of labor and industry and knowledge of business, produce the wished for results. When a man without these necessary conditions of success, spends his money in manures, and gets no return, the fault is not in the purchase of manures, but in the want of the other conditions. In their absence, he may wisely perhaps withhold the manure. All that we wish to impress is, that when he has at command the other requisites, with reasonable skill and knowledge in their application, even in the present imperfect state of our knowledge of manures, he can hardly go amiss in his expenditure on that account. He may spend seventy dollars per acre, when a better knowledge would have shown that fifty was enough, or fifty when twenty-five was sufficient, but whether twenty-five or fifty, or seventy, he will be abundantly repaid, *provided always*, that all other things work together in their due proportion. Do this, but leave not the others undone.

 We have received several varieties of Tur- nip Seed from the Patent Office for distribution.

WHEAT AND ITS ENEMIES.

When the enemies of the wheat crop are so prevalent, with a prospect of increase, let our friends take a few timely hints. There is no known remedy for the depredations of *fly*, *chinch bug*, *joint worm*, &c.; but we think experience will bear witness that there is a grand preventive in good cultivation. A vigorous and thrifty growth successfully resists, when the most promising appliances are powerless before, their ravages. And not only so, but throughout nature it will be found that where there is least power of resistance, the subtle enemy is most likely to make his attacks. It is not the sound and healthy, those who have enjoyed wholesome atmosphere and good food, who are swept off by epidemics, but those whose constitutions enfeebled by any cause, *predispose* them, as we aptly say, to disease. The sleek and well kept animal is not troubled with lice, when they swarm upon the ill-fed, "ill-conditioned" beast. And the enemies of plants, seek their food upon the poor and sickly, where they find as it were the least resistance against their encroachments. The principle is universal, that "from him that hath not, shall be taken away that which he hath."

But, however, this reasoning may be questioned, the philosophy of a sound, vigorous, healthy constitution for man, beast, or plant, as a safeguard against all natural enemies no one will question. For the wheat plant then, begin in time, and make the most thorough preparation for its reception. So get ready the ground, that it may do the very best of which it is capable. To those who plough deep, and aim to deepen their surface soil at every ploughing, we suggest that some judicious farmers, who would plough deep generally, think it not advisable for the wheat crop. We adopt the opinion to this extent, that we do not think a portion of fresh subsoil should be now brought to the surface. The natural range of the roots of wheat, is within about three inches of the surface, and for that reason it is desirable to have there the richest portion of the soil.

As to manures, he who properly uses all other means of success, should put on enough to secure him thirty bushels to the acre. The nearer he approximates that point, the less liable is his crop to suffer from its natural foes.

Early seeding is a point of great importance. A good growth of root in the Fall preserves from Winter killing. The plant having well withstood the Winter, is prepared for an early, vigorous start in the Spring. This enables it to resist and outgrow the attack of fly and other insects. And the early ripening is almost an insurance against rust. Where it is practicable, we should sow by the last of September. The only objection to early sowing is, that the crop is more liable to the Fall attack of the fly. This objection seems in practice,

to be far outweighed by the advantages on the other side.

Another important point, is that of good, plump, well ripened seed, of a hardy and early ripening variety.

WHEAT AND PEAS.

An esteemed correspondent in Georgia, says:—"I read your account of a visit to Mr. Hewlett's farm, with great interest. The pea is yet unappreciated as a fertilizer, especially for wheat; but it is the Boanerges of the South, as clover is for the North. I think your readers would have liked a more full explanation of Mr. Hewlett's mode of turning the vines under, &c. You cannot write a line about the pea which won't do good."

With reference to the crop of wheat on the Experimental Farm, near Petersburg, Mr. Nicol, has reported, as we learn from the *Southern Farmer*, the following fact: "That portion of the crop following what in our vicinity is called pea-fallow, suffered no perceptible injury from the ravages of the fly. That which was seeded on corn land suffered considerably from this cause, while that which followed buckwheat was very seriously injured." "If on pea fallow" says the *Farmer*, "it shall be generally ascertained that the wheat is exempt from this sore evil, this mode of preparation is destined to be soon very extensively practised."

The fact is one of much interest as to the exemption of the pea-fallow from fly. We expect to see more facts to the same purpose, and will give our readers a reason of this hope.

We do not believe that there is virtue in the pea to repel the fly, or that there is any specific which now or hereafter will exempt the wheat crop from fly and rust, and other evils which attach to it just as naturally as "the ills that flesh is heir to," cling there. But we have great faith in a sound natural constitution, and a due observance of the laws of health, whether in man, beast or plant, as the very best and only protection against natural enemies. Believing that the pea fallow is probably the best known method of preparing land for a healthy, vigorous development of the wheat plant, we say we expect to see more facts showing its comparative exemption from fly.*

* Since writing the above we see that a correspondent of the *Richmond Whig* writes, that his wheat dressed with two hundred and fifty pounds of Guano was very much injured by fly, and that that sown on pea fallow was far superior to it.

HOME MADE GUANO.—A correspondent, "*Potomac*," of Charles Co., Md., suggests that we have guano on our own shores, by which the farmers can be better benefitted than by that from the islands of the Pacific. He thinks that the *Night Soil* which could be secured in the city of Baltimore, properly manufactured, would be the means of saving the necessity of importing manures. The writer also proposes certain measures to confine its use to our own State, when manufactured,

which are not feasible. There is a company in New York, now in operation, to effect the object proposed by "*Potomac*," and the principal of that company has presented us with a plan by which a similar work can be established here, if those having the means would give a lifting hand to him in the enterprise. There is no question, in our minds, that the plan can be made profitable. In Paris, the city government derives a large revenue from the sale of the privilege of saving the night soil to manufacturers of manures, and why, with the facilities which would no doubt be granted by our corporate authorities, a profitable business could not be carried on in this matter, we cannot divine. We hope the subject will attract attention—and indeed we have understood that a movement is now being made in the premises, by a gentleman of this city, in whose qualifications for the business we have much confidence.

EXPERIMENTS WITH COLOMBIAN GUANO.

We have some experiments on hand with this guano, which are not yet sufficiently developed to make a report of. Upon corn, potatoes and other deep rooted plants, there has been too little rain since the first of June to look for any decided action. On a lot of millet, where the guano was deposited with the seed on finely prepared ground, that sown with Colombian rather took the start of the portion sown with Peruvian Guano. Both lots are now heading out. The portion dressed with Colombian, seems to have vegetated better and stands thicker upon the ground; otherwise there is no material difference between the two. The Peruvian shows to the line by the peculiar dark green color, while the other has, in comparison, a lighter green color, but is thus far, from having come up better, rather the heavier crop.

We have had favorable verbal reports of the action of Colombian Guano, and should be glad to hear further from those who have tried it. Our millet experiment sustains, we think the opinion, that it is a soluble phosphate.

✍ We learn from the July No. of our able cotemporary, *The Plough, the Loom and the Anvil*, that Mr. Parish, who has edited that Journal for some years past, has associated with him as senior editor, Prof. J. A. Nash, late of Massachusetts. Professor N. has had considerable experience as an agricultural editor and writer, and high reputation for his scientific attainments. We have no doubt he will add to the already well deserved popularity of the *Plough, Loom and Anvil*, published at Philadelphia at \$3 per annum.

✍ Col. W. W. W. Bowie, of Prince George's county, Md., has been invited to deliver the annual address before the Iowa State Agricultural Society next Fall.

THE CROPS.—Although the result of the wheat harvest has been much better than was anticipated, particularly North and West of us, still the general result, we think, will be less than an average crop—the berry, however, is generally very fine. We give some extracts from letters received at this office, and from other sources, as the data upon which we found our opinions.

A letter from *Chesterfield Co., Va.*, says:—“We are just through our wheat harvest: there will not be more than from a half to two thirds of a crop made, but from present appearances what is made will be good. In my neighborhood and on my farm the ground is black with chinch bug; they are getting now into our corn and oats.”

From *Nottoway Co., Va.*:—“Our crop of wheat turned out very poorly, having been very much injured by fly and chinch bug. The latter are now preying on the corn in countless numbers, though as yet they have done not much apparent damage. They cover the whole surface of the earth, where there is any grass of any description. As yet no plan of destroying them has proven effectual, and being distributed over such a large surface, it is impossible to get at them. When their mission is ended, doubtless they will disappear, and not soon-er.”

“Our tobacco is late, but may yet make an average crop. Oat crop about an average. We have a few peaches and apples, and many trees of each kind have died.”

From *Amherst Co., Va.*:—Wheat is a sorry crop in this county, this year will not come up to an average one by a good deal; corn and oats look well; tobacco will be very late, and not more than two thirds of a crop planted, which is our staple.”

From *Nelson Co., Va.*:—“I will give you bad accounts of our crops of all sorts in this locality, except in the James River bottoms. The wheat crop is generally a bad failure—cause Winter, or rather Spring, killing, fly, joint worm and chinch bug. But one planter in my county has planted any tobacco, and his beds are not good either—all others either have no plants, or they are only the size of a 9d. Our oats is a dead failure, and the corn is of course feeble and much missing.”

“It is said we croak habitually—who wouldn't, with \$6 per acre for guano, *outstanding*, and 6 bushels per acre to pay with, and that, if the press is to be credited, at 80 cents per bushel. In Nelson and Amherst counties, our *prospects are miserable*.”

From *Essex Co., Va.*:—I have nearly finished the harvesting of my wheat; the quality is very fine; the quantity will not reach over half to two-thirds of an average crop, and I am more fortunate than many of my neighbors, judging from my own experience and all that I can hear. We on the Rappahannock cannot exceed half an average crop. I have just returned from a ride over a portion of one of my fields first seeded, and where there was an application of 200 to 250 lbs. of guano to the acre, and the fly has scarcely left me seed; it is hardly worth cutting. My pea fallow “beats guano all hollow.” The corn with us is smaller than I ever saw it at this season of the year, in my immediate vicinity. We have had no rain to wet the earth two inches for two months or more; and, in addition to the dry, cold weather which prevented the growth of the corn, the cut worm played havoc with most that came up.”

From *Hanover and King William Co., Va.*: (from *Richmond Whig*):—“The quality of the grain has fallen far below expectations, for though the wheat is entirely exempt from rust, it is found that all of it which ripened too soon to derive benefit from the late rains is small and somewhat shrivelled—and that sown, on the contrary, the last of October and first of November, has a larger and plumper grain. In regard to the quantity, there can be no difference of opinion—all the farmers that I have conversed with concur in the opinion that the present crop is far inferior to any we have made for the last ten years, and that not more than half the amount of the crop of last year can possibly be realized. This statement applies to the average product of a series of farms, say extending from Hanover Court House to the New Kent line; a distance of about twenty-five miles, and embracing the highly improved marled region on both sides of the Pamunkey in Hanover and King William counties. The crops came out of the winter, looking for the most part remarkably well, and I began to have faith in the interesting vagaries of Professor Page, published last winter in the *Intelligencer*, but it was soon found, alas, that if the snow had furnished the famous amount of ammonia to the wheat that the learned Savan told us of—it had also given protection to all the insect enemies that wheat is heir to, and they soon destroyed the plants which the ammonia produced, and more besides. I have never in all my life seen the Hessian fly so destructive, and they continued their ravages to the last, causing a great deal of wheat to fall through the field after the grain was fully matured. Towards the last, the joint worm and chinch bug came to their assistance, forming an outrageous triple alliance which operated with deadly effect against our interests. I found in my field to-day, a bunch of wheat with chinch bug tugging at the roots, a brigade of “Hessians” encamped on each stalk just above ground, and in each upper joint a piquet-guard of the much dreaded joint worm! Are these not pests enough, Messrs. Editors, to counteract the *enormous profits* of agriculture? But the luckless farmer after garnering the remnant of his grain which the small insects may leave, has then to contend with a more formidable triple alliance among the big bugs of the cities. I mean the speculators, merchants and millers. The wheat crop in King William, from all I have seen, is even inferior to that of Hanover, especially on those farms off the river, many of which are utter failures.”

A letter from *Queen Anne's Co., Md.*, informs us that “the wheat crop is very light—in addition to other calamities, the late wheat being very seriously affected by rust—the crop of this county is at least 33 1-3 per cent. short.”

Rockbridge Co., Va.—For the past two weeks the farmers of this county have been engaged in their wheat harvest. The yield is unusually small. It is supposed that there will not be more than enough wheat made in this county to serve for bread and seed. The crop was cut short by dry weather, which set in the last of April, and continued until near the commencement of harvest. Many of the wheat-fields were hardly worth cutting. In many places, some good fields of wheat were to be found, but they were few, and confined for the most part to the best wheat lands, or to fields on which guano was abundantly used. Corn ground proved almost a total failure.—

The difference is perceptible everywhere through the county, between the corn ground and fallow ground sown in wheat. It is something remarkable, that, with scarcely an exception, even on the very finest lands, the former is greatly deficient. This is thought to be owing, in a great measure, to the late seeding, necessarily consequent upon waiting to cut up the corn. Our farmers will, perhaps, be induced another season to adopt the old fashioned plan of "shoveling in" their corn ground, as they will be enabled thereby to sow earlier, especially if the corn crop is late, like it was last season. The wheat grain will be pretty good, what there is of it. The straw is exceedingly short—the heads small, and could not possibly fill largely, for want of rain.

The oat crop is also a great failure, and will be late. It has improved somewhat with the few rains we have had, but cannot make half a crop. Corn promises but poorly, and cannot make half a crop.

HARVESTING.—The Middletown (Pa.) Valley Register says: Most of our farmers cut their wheat about the middle of the week, and from what we have learned, and our own examination, we believe we can very correctly report the crop in Middletown Valley, considerably above an average one.

The growing corn looks very promising at this time. The oats, which is now being cut, is also unusually good.

THE CROPS.—DROUGHT.—We have seen gentlemen, within the last few days, from various parts of Eastern Virginia, and some from beyond the mountains, and we have inquired of all of them respecting the crops and season in their respective regions. Our previous information is in the main confirmed by most of them. The wheat crop in Tide-Water Virginia is far inferior to any for ten years. In the southern part of the State, from Powhatan to the North Carolina line, the crop, with some, and those very few exceptions, "is miserable." The Piedmont country—extending from Alexandria along the foot of the mountains, to Franklin—fifty or sixty miles in breadth—the crop is generally very good—though produced at a heavy expense in guano. In the lower portion of the Valley the crop is fair—in Rockbridge, almost a failure—further west, in South-Western Virginia, satisfactory.

A general alarm, from the mountains to the seaboard, is felt for the corn crop. The rains have been partial and limited in quantity; the chinch-bug universal, and like the sand of the sea-shore for numbers. Many corn-fields are entirely destroyed by them already, and others can only be saved by timely and copious rains.

A correspondent from Essex complains that the corn crop in that county was destroyed by the bore-worm. There is a very simple and effective preventive of these villains. They always begin their attacks upon the *grain*: if that is rendered distasteful to them, they will not touch it. By soaking the seed-corn for twenty-four hours in a solution of saltpetre and copperas, or in tobacco-juice, you guard against them.

The corn crop—the best and most productive for Middle Virginia—cannot be a good or large one.—*Richmond Whig.*

From Dinwiddie Co., Va.:—"The crop of wheat the present year will be a short one, taking into consideration the large crop seeded; the forward sowing will turn out tolerably fair, but the latter sowing, owing I think to the cold dry Spring, together with chinch bug, joint worm, &c., will not

make half a crop; the bug has taken to the corn and is making sad work. Some farmers say they can't make a half crop; in fact, we are suffering for want of rain, some three to four weeks and no prospect for rain at present. So you see our prospects are quite gloomy. The stand of tobacco is not good by any means, it has died out for want of rain."

From Hardy Co., Va.:—"The wheat which has just been harvested here is an unusual light crop, some of the wheat in strong bottom land was very good, some of the best prospects were killed with the frost, which we had on 30th of May. The upland wheat generally was not worth cutting. We have a poor prospect of a good corn crop, there is a drought prevailing here at this time. If the corn crop fails here we will feel it strongly, as it is the only production that is raised profitably in this country."

THE EUROPEAN CROPS.—It is very evident that in France there is much apprehension of a bad harvest—the inundations by which the property to the amount of hundred of millions of dollars near destroyed, will operate also very severely in regard to the crops, much of which were destroyed in the general calamity. The prospects of the harvest, however, in England, were, at last accounts, very favorable; but there is no certainty in their climate until the grain is cut and secured. By a late arrival, we have the following facts noted:—

"It appears to be settled that very little grain will be exported this season from Russia. Hundreds of vessels which went to the Black Sea ports for cargoes will return empty."

"The weather had at last become fine, but it was feared that the crops had already suffered from too much rain. Breadstuffs had been purchased in England for Portuguese account."

IMPROVING THE BREED OF ANIMALS.—A writer in the *London Farmer's Magazine* truly observes: The principles of breeding animals have rather been illustrated than discovered by animal physiology—the very principles of that science having been taught before a single scientific axiom had been applied.

The watching of physiological tendencies, and availing themselves of these judiciously in practice, was long anterior to scientific research. Emulating the skill of the wily progenitor of the Jewish race, and intelligently perceiving what was required, a Culley and a Bakewell attempted and attained the production of sheep and of cattle, "ring-streaked, spotted and speckled," at pleasure. Seeing the necessity of economising food, they set about producing those animals which came to maturity early, and so produced vastly more food from the same amount of vegetation. Knowing that fat was an element of favor in the northern clime, they endeavored to obtain animals, with a tendency to secrete large quantities. In order to this, they observed the qualities indicative of those propensities; and knowing that it is as true in physiology as in mathematics, that like produces like, they selected and bred from these until they stamped their qualities permanently and invariably and indelibly on the race. With these they managed to combine symmetry of form.

HESSIAN FLY.

An intelligent correspondent of the *Southern Farmer* states that previous to the ripening of his grain, he has observed large numbers of the Hessian Fly sporting from plant to plant all over his field, and concludes, as the eggs of the insect must be deposited by the fly, that the propagation is carried on by puncturing the soft berry, and depositing the egg therein. That this egg is hatched out by the heat produced in the decomposition of the grain preparatory to sprouting, and that the maggot is there ready to attack the young sprout of wheat as it shoots from the berry. "It is an established entomological fact," says the writer, "that, although you may delay for a time the hatching of the eggs of insects, (a thing frequently practised with the silk worm,) still there is a period beyond which their vitality is destroyed." He proposes, therefore, as a remedy for the ravages of the Fly, the seeding of old wheat, supposing that according to this law, the eggs deposited more than a year past, will have lost their vitality.

The experiment is one easily made, and is well worth trying. It may be quite effectual as to all the eggs deposited in the grain. But it is well established, that the fly does likewise deposit its egg upon the young wheat plant, where it hatches in a few days, and immediately makes its way into the plant. In this case, the writer's remedy would be of no value.

The best opinions, as we gather from Dr. Harris' valuable Treatise on Insects, agree that there are two broods of the Hessian Fly in a year. The Fall brood, which lays its eggs in the creases of the upper surface of the leaf in September, or early in October. These hatch in about a week, and the worms crawl down to the base of the leaf, just below the surface, where it remains, subsisting upon the juices of the plant, and causing it to turn yellow. It gets its growth in about six weeks, then changes to a flax seed like body, within which the worm becomes a pupa the following Spring. From this the fly is evolved, and is ready for its work of propagation and mischief. Early in May it lays its eggs, which soon hatch out, and the worms soon nestle towards the lower joints of the stalk, weakening them, and causing them to bend and fall down from the weight of the head. These worms in the flax seed state, remain in the stubble or the straw, and from them the fall crop is hatched out.

The late appearance of the Fly, extending even towards harvest, as stated by the writer in the *Southern Farmer*, has led some investigators to the belief, that there is a third brood hatched out about this time. But most writers express the belief that those which make their appearance then, are only such as, in accordance with the fact suggested by the Farmer's correspondent, have had their time of hatching out retarded by some acci-

dental causes. These find at so late a period that the soft grain offers a more congenial place of deposit for the egg, than the hardening stalk.

Should it appear that this last appearance is a third and distinct brood, that they deposit their eggs entirely in the grain, and that their future propagation depends upon the hatching of this crop of eggs; then if it be true, that the eggs of insects lose their vitality after a certain time, the suggestion of the writer in the *Farmer* will cover the whole difficulty. The testimony as to the fact of the eggs being deposited upon the plant, is so strong, however, that we have no hope that the sowing of old seed will prove more than a partial remedy at best.

We shall be very glad to see the experiment made, and we heartily commend to our readers to follow the example of noting facts and observations of this sort, and furnishing them for publication. The enemies which prey upon the wheat crop have become yearly more formidable, and farmers cannot be too careful in gathering facts as to their habits.

REAPERS—CROPS.—A correspondent at Odessa, Delaware, encloses us a \$5 note for his own and a new subscriber to the *Farmer*, and adds:—You will notice the bank bill I send you has one of O. Hussey's original Reapers for a vignette, which shows in a measure the estimation they are held in this neighborhood—with all the new machines out, they still stand first in St. George's District, New Castle Co.

"Our wheat crop will be an average; oats will be very short, and corn is not at all promising. There would be a great deal of Peruvian Guano used by our Farmers at \$50 or under, for the short ton. For last Fall and this Spring crops there was not one fourth as much used as formerly—the Farmers are trying other manures, and I hope will succeed in finding something to supersede it altogether.

✂ A friend asks whether "quick or water slacked lime, and concentrated fertilizers containing ammonia may be applied to the same wheat crop or follow." They may be if they can be kept apart until the lime is thoroughly carbonated.—We should not fear if the guano is ploughed under to put the fresh lime on the surface, but it should not be brought in immediate contact with that or any other ammoniated manure.

ST. JOHN'S COLLEGE.—We are pleased to learn, that for the purpose of furthering the instruction of pupils of the Chemical Department of this venerable institution, the professors intend receiving samples for gratuitous analysis, under certain restrictions, the publication of which will be made from time to time in the "*Farmer*." We have received a communication from Prof. Stewart upon the subject, which came to hand too late for this number.

MEDITERRANEAN SEED WHEAT.

BEDEYTON, BERKELY Co., Va., July 11th, 1856.

To the Editors of the American Farmer.

The farmers of this County have now completed the cutting of their Wheat harvest, and I am satisfied that the yield will not exceed a half a crop; we had early in the Spring a very flattering prospect for an abundant yield, but owing to the ravages of the fly and the drought, together with the late frost, have sadly disappointed our expectations. Nearly all the early Wheat was more or less injured by the frost. Another drawback upon the Wheat crop, was, in this section, all the old varieties that have been cultivated here for a long time, have become so much deteriorated or run out, and seem to be more subject to the ravages of the fly and do not mature as formerly; the kind that succeeds the best here now is the smooth chaff Mediterranean, which has only been introduced here a few years. The old bearded Mediterranean was for a number of years the most hardy and successful Wheat we ever cultivated, but for the last two or three years it has proved almost a total failure: now my main object in addressing you is to request of you the favor to inform the numerous readers of the American Farmer, in your next issue, whether there is or will be any fresh importations of seed Wheat from the Mediterranean in time for the ensuing Fall seeding. There has been a great many varieties of foreign Wheats introduced here from different parts of Europe, South America and California, but none of them seems to suit this section of country as well as those varieties brought from the Mediterranean; we want here in this County some fresh importations of the old bearded Mediterranean, as well as some other varieties from that quarter. You will please also inform your readers if you can, where some of the old native Blue-Stem and Red-Chaff Smooth Wheat can be had.

Very respectfully, your

Obedient Servant,

A. W. McCREERY.

[We cannot give the desired information to our correspondent about the importation of fresh seed Wheat from the Mediterranean. We have heard of none likely to be imported. Messrs. Thos. Levering & Son, R. Sinclair & Co., N. E. Berry and other dealers in seeds can no doubt furnish the kinds alluded to at the close of the above note.—Ed. American Far.]

THE GUANO TRADE.

In our last, under the head of Markets, we alluded to the fact, that the Guano brought to this country, in other ports than that of Baltimore, was not subject to inspection, and that farmers should be on the alert that they had not an inferior article palmed off upon them, as it was believed that the guano now being imported, was not to be relied on, in all cases, as equal to that heretofore received, and if not inspected, loss might ensue.

The information alluded to, we find in the New York Evening Post, and copied into the Baltimore American and other papers, and was obtained from a gentleman who had been engaged in loading a ship at the Chincha Islands, and had been there several times. He gives some interesting information

about the trade, the Coolies, &c., at the Islands, which we omit, and give the facts alluded to by us. He says:—

"The islands are about ten miles from the main land, and are composed of new red sandstone.—The guano is not all of bird dung, but is largely composed of the mud of the ocean; that brought from Peru is so, at least. When anchors are hoisted into the ship from the holding grounds of vessels along the Peruvian coasts, large quantities of mud, of a greenish white color, are brought up, and this mud, when dried, makes guano equally good with the guano taken from the islands.

"The birds and seals come upon the island when the people are not at work, but it does not appear that their dung or decayed bodies are more than a foot deep on any of the islands. Fish are taken in great abundance about these islands, as are also seals, which come there in large schools. Sea lions also abound. The composition taken from the islands, called guano, is stratified, and lies in the same form it did before it was lifted up from the bottom of the ocean.

"Our informant says that a geological examination of the islands will satisfy any man that the guano ships are bringing away from these islands a very different thing from the dung of birds or decomposed animals.

"Gibbs & Bright, of Liverpool, have a lease of the Guano Islands from the Peruvian government, for five years, which expires in 1857, but hope to get their lease renewed. This house pays the Peruvian government about \$4.50 a ton for the privilege of taking all the guano from the islands, the government furnishing the men to dig the guano.

"The ships that load at the islands are mostly ships chartered to carry a cargo, or are sent there by the owners to take away a cargo, bought of Gibbs & Bright, who have the entire monopoly of the trade."

ON THE USE OF GUANO.—H. K. Burgwyn, Esq., of North Carolina, in making a correction in a statement published in the Southern Farmer, makes the following remarks:—"Allow me to correct your report of the first resolution of the Guano Convention recently convened at Washington.—Your report reads that the convention resolved it would 'continue negotiations with the government of Peru,' &c., &c. The resolution really offered and carried, you will find embodied in the address to the President herewith enclosed. Allow me to add, it was the almost universal opinion of the members of the Convention that, to use an Irishism, the use of guano had been greatly abused. It was stated by several gentlemen that in many parts of Delaware and Maryland the whole wheat crop made would not pay for the guano used on the land! This is truly a most lamentable account, and shows that many of us are working for the benefit of the Government of Peru and its employees, and not for ourselves, the action of Peruvian Guano is so very uncertain. I have been using it more or less for ten years, and three times during that period I have lost heavily. This year, being induced by the high price of grain, I bought largely, now and at the harvest, I confess to a contribution of \$1200 to the support of the Peruvian Government, for that amount is certainly lost to me and my heirs 'forever.' I should observe that application was made precisely as it had been

the year previous, when I made a considerable increase of crop, which the high price of wheat made a heavy profit on the investment. With wheat at \$1.20 the profit would have been but little. In conclusion, I will add that my own experience and all that I could gather at the Convention, brings me to the conviction that the best and only safe way to use the Peruvian guano is to use about 50 or 75 lbs. per acre, to be distributed with the drill for wheat; and about the same quantity freely mixed just before application, with good loam in the hill, at corn planting. For cotton or tobacco, I have never tried it.

Respectfully your obedient servant,

H. K. BURGWIN.

Thornbury Plantation, near Halifax, N. C. July 1st, 1856.

WHEAT IN AUGUST.—We again warn our friends against rushing their wheat into market in this month. We believe the price is uniformly low in August, occasioned by the amount of new wheat sent in, very often in bad order, whilst our business men are generally absent, and our mills undergoing repairs, or working short from want of water.—A circular from a commercial house in New York, contains some suggestions, to which it would do well to take heed. It says:—

"The time of harvest is generally a very busy time with planters, and but very little is sent to market until they get through with their corn crop. And it so happens that the great bulk of our Southern wheat generally arrives here in August, which is our warmest weather.

"Last season I received a considerable quantity of wheat. In fact, the greater bulk of it came on as usual, in August. The weather was uncommonly hot, and probably over two-thirds of it out of order, warm, hot, damp, musty, or unsound; and having instructions to sell it on arrival, was compelled to force it off for less than its value.

"Wheat that I sold at \$1.60a\$1.70 per bushel, had it arrived here five or six weeks sooner, would have brought \$2.30a\$2.40 per bushel, or had it been kept back until the last of September, October, or November, it would have brought \$1.90a\$2.12 per bushel, as to quality.

"It is true, the price, last season, ruled very irregular—up and down, and higher than it may for a long time to come. We usually have our regular breakdown in wheat out of order in August. We look for it, and our buyers profit by it; and as such is the case, we recommend our friends and correspondents, if they can send forward part or all of their wheat crop early, or at any time in July, provided they can get it in prime, dry shipping order, having all the chaff, dust and filth well fanned out of it, to do so; and if not, to keep it back until September, October or November. Wheat, if sound, dry, and well cured, the chaff, dust and filth well fanned from it, will not heat, or get out of order.

"Several of our planters have long since been putting their grain in better shipping order. We hope others will follow. Any additional outlay to put it in prime, clean, dry shipping order, will more than pay for the expense."

GREAT DROUGHT.—There is prevailing at this time (28th Aug.) throughout the country, a drought more severe than has been experienced for many years.

EXHIBITION OF RARE BIRDS.

We are pleased to learn that Mr. J. J. Bowers, of this city, has concluded to be present at the next exhibition of the State Agricultural Society with his large collection of rare birds. We learn from Mr. Bowers' letter to the President of the Society, that his collection embraces a very large variety of specimens, collected from all parts of the globe. Black Swans, white pea fowls, pigeons of every known variety; varieties of wild geese and of white swans. Seven varieties of cockatoos, of beautiful plumage, making some great curiosities; besides ornamental fowls of very many kinds. Mr. Bowers took large premiums at the Philadelphia Exhibition of Poultry, last fall, and his collection is probably not surpassed in this country.

The study of the character and habits of birds is a valuable one to the farmer. He has friends and enemies among the tribe, and he sometimes murders the former and protects the latter, through ignorance of their character. Such an exhibition as this, besides being a very handsome and attractive feature of the Show, will tend to awaken attention to the study of Ornithology.

SEED CORN.

The complaint of the failure of the early planted corn to germinate, has been very general, and the subject should be investigated. At a meeting of the Philadelphia Agricultural Society, the following conversation took place:

"Mr. S. C. Willets, of Holmesburg, inquired as to the success which has attended the planting of corn this season. His corn had come up very irregularly, a large portion of his fields had been replanted, and with but a slightly improved result. He attributed the failure to bad seed corn.

Dr. C. R. King, of Andalusia, Bucks county, had experienced the same difficulty, and with him the second planting had turned out worse than the first. On light sandy soil, as well as on stiff clay, had the failure been experienced. He felt sure that the cause did not lie in the nature or improper preparation of the soil, nor in the season, which thus far had been genial.

Mr. Landreth's experience during this Spring had not agreed with that of the last speaker. On some portions of his farm corn had come up irregularly, while on other portions, the same kind of seed, similarly planted, had done well. Corn intended for seed ought to be preserved on the cob and not kept in bulk. This was especially true of the White Flint variety, the cob of which was very succulent.

Mr. Willets remarked that the millers had observed the inferior quality of much of the corn of last year, the meal of which was far below the standard grade. He maintained that to plant such corn on any soil must result in disappointment.

Mr. A. T. Newbold believed that the varying aspect of the surface, or the exposure, might in part account for the difference in the germination. Some fields were much more exposed to the chilly influences of the cold, clear nights which we had during the last month or six weeks.

Mr. John S. Hanes, of Germantown, had noticed that in many parts of the Western country complaints of the coming corn crop, similar to those heard here, were being published in the agricultural papers. He had tested with the Stowell corn the superior advantage of planting the grain which had been permitted to remain on the cob.

The Editor of the Telegraph, says:—As to the irregularity in the germination of the planted corn, we may add that the complaint is general throughout Pennsylvania and in parts of other States. We are sure it is in the seed, and we do not believe that the grain remaining on the cob would have been a remedy. We planted from the cob as fine, sound-looking Sugar Corn, obtained from Mr. Landreth, as we ever saw, and not one grain in twenty sprouted. On examining the seed, we found invariably the germ was black and rotten. A second planting succeeded no better. Other varieties sprouted regularly. We have no doubt that the germ was destroyed either by harvesting too early, or by cribbing in too large bulks."

WORK IN THE GARDEN.

AUGUST.

Setting out Cabbage Plants.—In the first rain during this month set out your cabbage plants of all kinds.

Spinach.—Prepare beds during the first and second week of this month, and drill in a few rows of spinach seed for use next and the succeeding month.

Sowing Radish seed.—In the first and second weeks of this month, sow radish seed, as short-top, salmon, white Naples, and black and white Spanish varieties.

Asparagus Beds.—Keep these free from weeds during this month.

Turnips.—During the first week of this month sow turnip seed.

Celery.—Plant out your celery plants. Earth up your advancing crops for blanching.

Small Salading.—Sow seeds of all the small salading every ten days throughout the month.

Peas.—Any time before the middle of the month, drill in a few rows of the early peas; they will be fit for the table in the latter part of next month.

Beans.—Any time up to the middle of this month, you may drill in a few rows of dwarf beans. If the weather is dry, soak the seed in warm water 6 or 12 hours, and water the rows every second day, just before sun-down, until the plants come up, and until a rain occurs.

Lettuce.—Set out your plants now ready, for heading, and sow more seed every 10 days throughout the month.

Endive.—Your endive that may be full grown should be tied up, or covered with boards to blanch.

In the early part of this month sow seed for late fall or winter use.

Melons, Cucumbers, &c.—Keep these clean of weeds.

General care of Crops.—See that the beds of all your crops are kept clean of weeds; that the earth is well stirred and open to the influences of the weather; and that whenever the weather is dry, they are copiously watered at least three times a week.

Lima and Carolina Beans.—Hoe and keep these clean, and cut off runners that may be trailing on the ground.

FLORICULTURE—FOR OCTOBER.

Prepared for the American Farmer, by John Feast, Florist.

In this month commences the season for preparing for winter, and where a large collection is kept, there is much to do in repotting all such plants as may require it. Indeed the whole should be gone over, and care taken to give good drainage. If repotting is not done, a little top-dressing is beneficial to plants; also examine and clean them of the different insects, as scaly bug, &c.; this saves much trouble when put in the house, as they increase rapidly, and spread soon over the largest collection, which is very injurious to all plants, and renders them unhealthy, and lessens the beauty of both foliage and flowers.

Camellias should have a general shift this month, in soil most suitable. Inarching may be done now. Frequent syringing is required to keep down the red spider, which they are so liable to be attacked by. Give them plenty of room and a shady situation.

Chrysanthemums will need their last shifting to the pots intended to flower in. Keep the plants as dwarf as possible, and thin out any small lateral branches. Give them a full supply of water, and once a week a liquid watering of guano to assist their growth.

Pelargoniums should be headed down, and care taken that they do not get too much water, as many are lost after being cut down, by too much moisture. Keep them in a dry situation till they show signs of growth, then give more freely of water. As they make foliage, put in cuttings for a new stock, if wanted, and sow seed in pans or shallow boxes.

Achemenes and Gloxinias, &c. will begin to bloom now. Put all in sized pots sufficient for flowering. Keep them in a moist atmosphere, and a little shaded from the sun, and attend by giving a regular supply of water.

Roses intended for wintering should be repotted, headed in, and placed in a good situation. They may be propagated from cuttings at this time; also budding to increase rapidly the stock of any fine varieties.

Fuchias, where large specimens are wanted, require particular care. Encourage their growth, and syringe frequently. By this means they retain foliage, as they delight in a moist, shady atmosphere. If not strictly attended to, soon become unsightly by losing their foliage and flowers, caused altogether by the red spider and dry atmosphere.

Plants of all kinds for winter flowering, as *Heliotropes*, *Stevias*, *Alyssums*, &c., should be cut down and repotted, and encouraged so as to be in fine order for housing at proper time. Attend to all creepers in the houses; cut out all decayed wood, and train neatly those that are disposed to run at random. Flowers like the *Bignonias*, *Passion Flowers*, &c., are infested with a mealy bug, and should be divested soon, otherwise they cause much trouble. Seeds of various kinds sow now, as the *Cinerraria*, *Calceolarias*, *Alyssum*, *Pansy*, *Mignionette*, and any others intended for fall and winter flowering.

Chinese Primroses should have a repotting, and seed sown, if a young stock is required. Layering might be done this month, of *Carnations*, *Roses*, or any plants that are wanted to increase the stock, and give occasional watering. Attend to the

growth of the Dahlias, and keep tied up. Give them good strong stakes, and water if the season require it.

GREAT CATTLE SALE OF LEWIS G. MORRIS.

The great public sale of improved stock, embracing Short Horn and Devonshire cattle, South Down Sheep, and Essex and Berkshire pigs took place at Mt. Fordham, the residence of Mr. Morris, on the 24th and 25th of June, as before noticed. Hundreds of ladies and gentlemen assembled to witness the sale—the occasion having been made a festive one by the wealthy and liberal proprietor. We give the records of the sales as we find them in the papers.

SHORT HORNED BULLS.

Romeo—Calved April 1850; sold to Reber & Coutts, Lancaster, Ohio, at \$600
Suffolk Hero—Calved July 1854; sold to Geo. Clark, Otsego County, N. Y., for \$325
Balconi—Calved Feb. 1849; sold to Mr. Van Ingham, N. J., for \$160
Brawith's Boy—Calved May 1855; sold to Francis Morris, for \$340
Charlemagne—Calved Dec. 1854; sold to F. Morris, for \$340
Marmion—Calved Oct. 1855; sold to the brothers B. & C. S. Haines, N. J. for \$500
Jacintha's Romeo—Calved Oct. 1853; sold to John Hunter, N. Y., for \$400
Chester—Calved Dec. 1855; sold to David Brooks, N. Y., for \$300
Orpheus—Calved Dec. 1855; sold to J. B. Crippen, Mich. (This was the highest price paid at the sale, and that, too, for a 6-months old calf. The bidding was spirited, and shows the value set upon blood—justly we think,) for \$675
Belmont—Calved Feb. 1856; sold to Amos F. Wood, N. Y., for \$375
Stanley—Calved Feb. 1856; sold to Benj. F. Whitlock, N. Y., for \$230
Barrington—Calved March 1856; sold to Jos. Orvis, N. Y., for \$150
King of Algiers—Calved April, 1856; sold to Robert Gerdon, C. W., for \$400
Bailliff—Calved May 1856; sold to Joseph Orvis, for \$110

NORTH DEVON BULLS.

Frank Quartly—Calved March 1851; sold to Col. B. P. Johnson, Secretary N. Y. State Agricultural Society, for \$350
Crusader—Calved April 1855; sold to George D. Parish, N. J., for \$105
Prince—Calved May 1855; sold to Mr. Buckhart, N. Y., for \$150
Master Birthday—Calved Feb. 1856; sold to R. Peters, Georgia, for \$340
Somerville—Calved Oct. 1855; sold to Lucius H. Colby, N. Y., for \$155
Byron—Calved Nov. 1855; sold to Francis Morris, for \$250

NORTH DEVON COWS AND HEIFERS.

Birthday—Calved April 1854; sold to L. H. Colby, for \$450
Princess—Calved 1857; sold to Francis Morris, for \$340
Virtue—Calved Oct. 1848; sold to F. Morris, for \$440
Edith—Calved Oct. 1848; sold to Joseph Hilton, for \$300

Birthday 2d—Reserved by the owner.

Princess 2d—Calved June 1853; sold to Hon. John Wentworth, Ill., (Editor Chicago Democrat) for \$275
Princess 3d—Calved April 1854; sold to A. G. Summer, S. C., for \$250
Birthday 3d—Calved Dec. 1853; sold to F. Morris, for \$325
Birthday 4th—Calved Dec. 1854; sold to F. Morris, for \$350
Princess 4th—Calved March 1855; sold to John Wentworth, for \$265
Rena—Calved May 1855; sold to Mr. Hunter N. Y., for \$230
Rachael—Calved Jan. 1856; sold to B. M. Whitlock, for \$175
Princess 5th—Calved May 1856; sold to A. G. Summer, for \$150
Rouge—An old cow; sold to J. Hilton, for \$125
Fuchsia—Calved July 1851; put up, but not sold, at \$250
Ruth—Calved March 1853; sold to J. Hilton for \$225
Princess 6th—Calved May 1856; sold to Hon. Mr. Conger, N. Y., for \$110
Birthday 5th—Calved June 1856; (18 days old,) sold to F. Morris, for \$150

SOUTH DOWN SHEEP.

Young York—A five year old buck; sold for \$400, to Samuel Thorne, Thornedale, Washington Hollow, Dutchess Co., N. Y.

Fifteen yearling bucks, sired by Young York, sold for \$50 to \$140 each. Lewis F. Allen, of Black Rock, Erie Co., N. Y., took four of them.

About 120 South Down ewes and lambs, brought 45 to 160 each. Mr. Thorne took a large number of them. Six went at \$140, \$150, \$160, \$140, \$150, and \$180. J. C. Taylor, of Monmouth Co., N. J., took one at \$140.

The improved Essex Swine sold for \$15 to \$80 each. A lot of Berkshires sold at prices quite as high.

Ox-SHOERING.—We frequently find in agricultural papers, some remarks about shoeing horses, but I have never seen anything therein about shoeing oxen. Now it is true that a horse should be shod in such a manner as to cause him to stand and travel with ease, and the ox should be shod with equal care—but we frequently find oxen, especially large oxen, lamed by shoeing. Now, I find one great error to be in the length and shape of the shoes.—If the shoes are long and crooked, they of course, cause the weight of the ox to bear on the inner edge of the shoe, or centre of the foot, causing the hoofs to cant in an unnatural position. This may do for small, light cattle, but with heavy oxen it is quite different.

In shoeing large oxen there should be one inch of the toe or forward end of the hoof left bare, and be sure that the shoe sets flush with the outside of the hoof. Then the heel of the shoe should not be crooked or turned in too much; but our blacksmiths are apt to be in too great a hurry, and if a shoe comes within hailing distance of a good fit, they must nail it on in preference to selecting a better.

I am not a blacksmith, but I have always been acquainted with oxen, having teamed for forty years, and, of course, had many cattle shod. If the above remarks, are not correct I should like to be set right.—*Maine Farmer.*

GATHERING CLOVER SEED.

The *Valley Farmer* has an article on this subject which is much to the point. The principal facts are furnished, through a correspondent of the paper mentioned, by a farmer, Mr. Ludwig, of Bucyrus, Ohio. The following comprises certain questions which were put to him, with his answers:

1st. What is the best soil for the cultivation of clover?

Ans.—Clay soil, decidedly, for clover or wheat. Lime should be an ingredient of the soil.

2d. The best method of preparing the ground?

Ans.—I have found it best to prepare the ground well for the wheat, and if it has not been done in the last three years, the subsoil plough, or Michigan Double Plough should be used. Sow the wheat in the Fall, and on the same sow clover in the Spring.

3d. The best time to sow clover?

Ans.—Generally about the first of April, if pure seed is used—if in chaff, earlier.

4th. The quantity of seed to the acre?

Ans.—About eight quarts of pure seed to the acre. You can scarcely use too much.

5th. The best time to cut clover for seed?

Ans.—When the largest quantity of seed is ripe. When more is falling off from over ripeness than is getting ripe, it is high time to cut.

6th. In what manner should the grass be treated when cut for seed?

Ans.—Get it dry as fast as possible, and with the least handling. Get it into the barn (not stack, it will not turn rain.) It was formerly the plan to let it lay to *bleach*. That is wrong; it should not get wet if it can be avoided. It causes a great loss of seed.

7th. What is the best method of getting out the seed?

Ans.—I have used and seen used a number of Clover Hullers, but have found a good Syracuse threshing machine (for wheat) to answer the best, by adding thereto a *concave* of sheet iron, to be placed outside of the cylinder; the clover heads let in at one end passing out at the other. Mr. Ludwig constructed this improvement for his own use, and also a *revolving screen*, through which it was first run, and under which was a *fan*,—these separated the stems, leaves, and light or seedless heads from the valuable portion, which being by this process much reduced in quantity and bulk, was then run through the threshing machine or huller, arranged as before mentioned. He however says, that it would be difficult to so describe the arrangement as to enable any one at a distance to arrange it. He informs me that by his plan he could, with three hands and two horses clean forty bushels of seed per day. Twelve to fifteen bushels is a good business with a clover huller.

8th. What clover machine or huller is estimated the best?

Ans.—Those invented and made by M. H. Mansfield, of Ashland, Ohio.

9th. What quantity is usually raised per acre in Crawford county, Ohio?

Ans.—It is a very uncertain crop. From seven bushels to a total failure. Average two and a half bushels per acre.

10th. The price per bushel?

Ans.—Very fluctuating, owing to crops, here and in other clover raising districts. Varying from \$3 to \$6 50.

The editor of the *Farmer* adds the following in reference to the threshing machine used:

"The Syracuse machine referred to, is the Endless Chain or Railroad Horse Power and Thresher, manufactured by Emory & Co., and Wheeler, Mellick & Co., in Albany, N. Y. In order to make the subject of cleaning with the Thresher, as referred to, a little more clear, we will state that the teeth in the Thresher are placed spirally around the cylinder, the front of the cylinder being cased up with iron wood. The seed is filled in rather compact at one end, and by the spiral action of the teeth it is hulled as it is forced forward and discharged at the other end of the cylinder. This method of hulling will answer where a farmer has the Thresher on hand, but a regular huller which hulls and cleans the seed at one operation, is to be preferred. These are run by any of the ordinary horse powers, the same as a common wheat thresher is run."

The editor also gives the following description of a machine for gathering clover seed:

"Make an ordinary sled with the sides or runners 14 inches wide and 6 feet 6 inches long. These may be placed 5 or 6 feet apart, and secured together with two cross pieces only at the back end, leaving the forward part open to the length of 3 1-2 or 4 feet; then a box is made to nearly fill the width between the runners. The box is four feet long and 15 inches deep, with the forward end open. To the cross pieces at the bottom of the box, at the forward end, teeth of hard wood are secured so as to project about 12 inches. They should be about 3-4 of an inch thick and 1 inch wide on the top, and made a quarter of an inch narrower or beveling on the under side. These teeth are placed *three-sixteenths* of an inch apart, so as to form a comb. If the upper sides of the teeth were capped with hoop-iron, neatly fitted, it would be better. The box is hung between the sides of the sled upon two gudgeons or pins two inches in diameter, just as a cannon is hung in its carriage. With two handles, four feet long, secured to the box and projecting behind, the box may be moved on the pins so as to raise or lower the teeth to adapt them to clover of any height. A man with a horse can strip the heads from four or five acres of clover in a day with this machine and collect it in the box. With one of these machines a farmer can gather as much seed in a day as would be required to seed forty or fifty acres. It needs no hulling or cleaning, unless it is designed for market. Some prefer to sow the seed in chaff to that which is cleaned."

In addition to the new advertisements for this month, noticed on page 62, we would call attention to those of

Mr. N. E. Berry, of seed wheat, guanos, magnesium lime, salt, &c.

Mr. Isaac Pullen, Hightstown, N. J., fruit and ornamental trees.

Messrs. S. Ault & Son, garden and field seed, for the season.

Mr. H. Sturges, great sale of Devon stock at Morris, N. Y.

Mr. Allen Young, land for sale near the White Sulphur Springs, Va.

Dr. Wm. S. Reese, report of analysis of guano. Messrs. W. W. Dingee & Co. of York, Pa. of their Railway Power and Thresher.

Messrs. Paschall Morris & Co. of Fresh Garden Seeds.

Messrs. McGee & Wood of Va. a Grain and Seed Sower.

METEOROLOGICAL TABLE FOR JUNE, 1856.

Kept at Schellman Hills, near Sykesville, Carroll County, Md.

	THERMOMETER.				CLOUDS COURSE.			WIND.			REMARKS.
	7 A.M.	2 P.M.	9 P.M.	Daily mean.	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	
1	50	78	65	64 ¹ / ₂	W	SW	O	W	SW	W	Clear
2	68	88	70	75 ¹ / ₂	W	W	O	W	W	W	do
3	65	92	78	78 ¹ / ₂	W	W	O	W	W	SW	do
4	75	90	74	79 ¹ / ₂	W	W	W	S	S	S	Cloudy,
5	72	82	61	71 ¹ / ₂	W	W	SW	S	W	SE	Cloudy,*
6	55	61	50	55 ¹ / ₂	E	E	NE	E	E	NE	↑
7	55	61	50	55 ¹ / ₂	NE	SE	SE	NE	S	SE	Misty, Cloudy,
8	61	72	65	66 ¹ / ₂	SE	S	W	SE	S	SW	Clear
9	65	80	75	73 ¹ / ₂	W	W	W	SW	W	SW	do
10	65	75	65	68 ¹ / ₂	W	W	S	S	S	W	Clear, Cloudy,
11	65	81	70	72	W	W	O	SW	SW	SW	Clear
12	70	78	70	72 ¹ / ₂	W	W	W	S	S	SW	do
13	72	80	70	74	W	W	SW	W	W	SE	Clear, Cloudy
14	67	78	65	70	W	W	W	W	W	NW	Clear
15	65	70	60	65	W	W	O	SW	SW	W	do
16	61	76	67	68	W	W	W	W	SW	SW	do
17	65	75	60	66 ¹ / ₂	W	W	SW	S	S	SE	do
18	60	75	68	67 ¹ / ₂	SW	SW	S	SW	S	SW	Cloudy, Clear
19	68	75	68	70 ¹ / ₂	S	W	S	W	W	SE	Clear,§
20	68	86	74	76	SW	O	SW	SW	SW	SW	do
21	75	89	81	81 ¹ / ₂	W	W	O	S	S	S	do
22	80	93	83	85 ¹ / ₂	O	W	SW	S	S	E	do
23	74	83	75	77 ¹ / ₂	W	W	W	W	NW	S	do
24	70	79	69	72 ¹ / ₂	W	SE	E	S	SE	SE	do
25	68	77	70	71 ¹ / ₂	SW	SW	O	S	SW	S	Cloudy Clear,
26	75	89	77	80 ¹ / ₂	SW	SW	W	S	S	SW	Clear, Cloudy
27	74	87	78	79 ¹ / ₂	W	W	W	W	W	W	do
28	73	89	76	79 ¹ / ₂	W	W	W	W	W	SW	Clear
29	80	91	86	85 ¹ / ₂	O	O	O	SW	SW	SW	do
30	81	91	84	85 ¹ / ₂	W	W	W	SW	W	W	do

Monthly Mean, 73.

*Rain began 3 P. M., end. 6 P. M., $\frac{1}{4}$. †Began to rain 5 A. M., 4 P. M. $\frac{1}{2}$ Cloudy. ‡5 P. M. began to rain, end. 9 A. M. $\frac{1}{2}$. §15 min. after 12 noon, Storm, end 25 after 12 noon, $\frac{1}{4}$, hail, w.—4 P. M. Shower lasted 20 minutes, 1-5.

CONCENTRATED MANURES.—At a meeting of the Prince George (Va.) Club, Mr. Charles Friend gives the following as his experience in the use of these manures:—

"I used guano as a top-dressing on wheat, the spring of 1845, and also on oats dragged in, at the rate of 200 pounds per acre, which bid fair to make a handsome return; but frost killed the wheat and injured the oats very seriously.

I did not use it again until 1850, since which time I have used it on corn, ploughed in before planting, with and without plaster, with no visible improvement to the crop, although I used from 150 to 200 pounds broadcast. I have used it nearly every year since 1850 on the oat crop; sometimes ploughed under, sometimes dragged in with the oats, and have in every case reaped remunerating crops. I do not think I have been paid in its use upon vegetables; if so, it has been upon the Irish potato. I have used De Burg's and Mapes' super-phosphate, also the Mexican and White Mexican guano on corn, but could perceive no benefit to the crop; but the super-phosphates acted finely on the wheat crop which succeeded it; and I thought that the guanos paid at least their prime cost, by the increased production of wheat.

"Bone dust I have used, but have seen no benefit, as yet. It was applied at the rate of 300 lbs. per acre for corn, and the land seeded in wheat

after the corn crop. It has rested two years, and is this spring planted in corn, in which crop I hope to be repaid, as it acts slowly, but lasts many years."

FOREIGN DUTIES ON TOBACCO.—We understand, says the New York *Herald*, that the Zollverein have it in contemplation to raise the duties upon North American Tobacco. Should they carry this intention into effect, it will seriously affect the growth of the plant in this country. Our Government should take immediate steps to remonstrate against such a measure. So many important interests will be destroyed by it that it is important that no time should be lost in making strong representations upon the subject. The last commercial circulars from Bremen state that the Tobacco Market during the month of March was characterized by the absence of all supplies, by great firmness in prices, and stocks as light as they have ever been during the last fifteen years, viz: 600 hogsheads of Tobacco and Stems. In a fiscal point of view, the imposition of excessive duties on this article would be the most impolitic experiment that the Zollverein Government could make. It would completely extinguish a source of revenue which is daily becoming more valuable.

See cover for a number of advertisements.

NEW ADVERTISEMENTS.—We call attention to the following new advertisements in this Month's No., viz:

Of a great sale of Lands and Negroes in Va.: by D. J. Hartsook, agent for Mrs. Cabell—well worthy the attention of capitalists and others.

Messrs. J. J. & F. Turner's "DeBurg's" manure, in which testimonials from a number of our most respectable farmers are presented.

Jno. S. Reese's Manipulated Guano, which is also strongly vouched for by respectable authority.

Mr. Trego's Soluble Phosphates and Peruvian Guano, which from the nature of the ingredients, ought to be valuable.

P. Malcom & Co., offers all kinds of Guanos, and other fertilizers, and solicits a call from farmers and others.

Mr. Jessop, offers his Cotswold Sheep, of both sexes and various ages.

Messrs. Saxton, their stock of Agricultural Books—and also call the attention of Agricultural Societies to the same for premiums.

Mr. Carroll and Mr. Hughlett also offer some of their fine flocks of Sheep for sale.

Paschall Morris & Co., of Philadelphia present a Wine and Cider Mill, Krauser's, to the consideration of the public, as a very superior article—and Mr. Hickok of Harrisburg, has a supplementary notice in regard to his Mill, already noticed.

Messrs. Sterling & Ahrens offer valuable lots of Mexican Guano, white and brown.

Mr. C. R. Pearce also offers Mexican Guano of the highest grades.

Messrs. Ellwanger & Barry, Rochester, N. Y. are ready to furnish their Catalogue of Trees, &c. to applicants.

OFFICE OF INSPECTOR OF GUANO, }
No. 11 Exchange Buildings. }

ANALYSIS

Of average samples Peruvian Guano from the following vessels, imported by Messrs. F. Barreda & Bro. since last report:

June 3d—Dennis Kelley, Ammonia, 18.10 per cent.
June 11th—A. Manderson, Ammonia, 15.56 per cent.
June 17th—Our Union, Ammonia, 19.30 per cent.
June 22d—Parthion, Ammonia, 15.45 per cent.
June 27th—Madara, Ammonia, 16.25 per cent.
June 28th—Charles, Ammonia, 15.15 per cent.
July 6th—Rautler, Ammonia, 16.80 per cent.

All the above cargoes contain from 25 to 30 per cent. of Bone Phosphate of Lime.

COLOMBIAN GUANO.

May 21st—White Swan, 41.10 Phosphoric Acid, equal to 89.65 per cent. of Bone Phosphate of Lime.
June 6th—Charles Hill, 41.16 Phosphoric Acid, equal to 89.13 per cent. of Bone Phosphate of Lime.
Nora, 40.58 Phosphoric Acid, equal to 87.83 per cent. of Bone Phosphate of Lime.

MEXICAN GUANO.

May 10th—Matilda Christiana, 30.30 Phosphoric Acid, equal to 65.43 per cent. of Bone Phosphate of Lime.
Brig Echo, 26.10 Phosphoric Acid, equal to 56.53 per cent. of Bone Phosphate of Lime.
June 2d—Leocadia, 28.18 Phosphoric Acid, equal to 56.72 per cent. of Bone Phosphate of Lime.
June 5th—Schooner Maine, 28.90 Phosphoric Acid, equal to 62.62 per cent. of Bone Phosphate of Lime.
June 27th—Schooner Lejok, 26.19 Phosphoric Acid, equal to 56.56 per cent. of Bone Phosphate of Lime.
June 33th—Brig Abbotseford, 28.20 Phosphoric Acid, equal to 61.31 per cent. of Bone Phosphate of Lime.
June 30th—Brig Ocean Belle, 28.30 Phosphoric Acid, equal to 61.31 per cent. of Bone Phosphate of Lime.
July 14th—John Marston, 15.02 Phosphoric Acid, equal to 29.21 per cent. of Bone Phosphate of Lime.

WHITE MEXICAN.

June 5th—Schooner Maine, 34.10 Phosphoric Acid, equal to 74.83 per cent. of Bone Phosphate of Lime.

WM. SMITH REESE,
State Inspector.

aug. 1.

THE BEST PORTABLE CIDER MILL AND PRESS

IN THE WORLD.

WE ARE NOW MANUFACTURING

KRAUSER'S CELEBRATED PATENT PORTABLE CIDER MILL AND PRESS,

Which has been greatly improved since last season, and is now offered to the public with full confidence, as being beyond all doubt the most complete and effective mill in use.

This celebrated mill, which has attracted so much attention, not less for its novelty and simplicity than for its great efficiency, is offered to the public upon its own merits, which are of the highest character. During the past two seasons we have had hundreds of opportunities of testing the superiority of this admirable mill, and in every instance it has given entire satisfaction to purchasers. It is believed to be far superior in effectiveness and durability to any thing of the kind in the market. It can be worked by a couple of men to the extent of eight or ten barrels per day.

One of its principal features is the arrangement of the RECIPROCATING PISTONS, which by their alternate action, (an operation at once simple and beautiful,) the apples are irresistibly retained against the revolving teeth till they are torn into a fine pulp. In other portable machines they are often cut into small pieces, which of course will not so readily part with the juice when subjected to pressure. The press attached to the machine is capable of performing a pressure equal to ten tons.

THE ARRANGEMENTS FOR PRESSING

Have been greatly improved and strengthened.—The necessity for handling the pumice is entirely obviated. The tubs beneath the grinding apparatus receive the pulp as it falls from the mill. These tubs are then shoved beneath the press, thus saving not only the loss of time, but the waste of labor.

In point of novelty, simplicity, durability, effectiveness and cheapness, Krauser's mill stands unrivalled.

IT IS ADAPTED TO HAND OR HORSE POWER.

Is made in a style of workmanship, and of a quality of material, altogether superior to any mill ever offered the public. It is warranted to work well.

We therefore confidently ask the attention of farmers and others to this mill, believing that it is just the article for the times, and decidedly the best and cheapest in the market.

All orders accompanied by the cash, or good Philadelphia references will meet with prompt attention. Those ordering should be very explicit in giving directions for shipping.


PASCHALL MORRIS & CO.

Manufacturers and Dealers in Agricultural and Horticultural Implements, Seeds, &c.

N. E. Corner Seventh and Market Sts. Philada.
aug-21.

FOR SALE.—A SOUTH DOWN BUCK, 2 years old.
Apply at this office. aug-11

GREAT SALE OF NORTH DEVON STOCK.

 **T**HE whole and entire herd of pure NORTH DEVON CATTLE imported and bred by R. H. Van Rensselaar, of Morris, Otsego county, N. Y., will be sold without reserve, by public sale, at WATERTOWN, on Thursday the 3d day of October, at 1 o'clock, on the ground appropriated to the New York State Agricultural Society on the 30th Sept., and 1st, 2d, and 3d of Oct. next, consisting of twenty-three females and three males, which includes among the latter the celebrated and imported bull "Megunticook," winner of the first prize at the show of the American Institute in 1850, and also the first prize at the New York State show in 1851.

Nothing is risked in pronouncing this herd one of the three best herds of North Devons in the United States, and unsurpassed by any one of them.

Catalogues will be furnished on application at the offices of Secretary of the New York State Agricultural Society, Boston Cultivator, and Albany Cultivator, by Col. L. G. Morris of Fordham, Westchester Co., and the undersigned, at Butternuts, Otsego county.

H. STURGES.

aui-3t

LAND FOR SALE.

A most valuable tract of land is offered for sale by the subscriber, containing 2,000 ACRES of land, 800 of this in original growth; 350 is the very best of low grounds, 100 of which is well drained. The remainder is free upland, suitable for the production of corn, wheat, tobacco, &c.

This land lies in both the counties of Warren and Franklin; it is three miles and a half from Shocco Springs, and two miles from Jones' White Sulphur Springs.

This place is a high, healthy, well watered plantation.—There is a good dwelling house and out-houses on the place. I will take pleasure in showing the land to any person wishing to purchase.

ALLEN YOUNG,
Shocco Springs P. O.

aui-1f

SCHUYLKILL MAGNESIAN LIME.

I AM authorized to receive orders and to deliver, after ten or fifteen days' notice, in any quantity not less than 3,000 bushels, on the following terms:—

North of Baltimore, 9 cents slaked and 17 cents unslaked.
In Baltimore, 9 do. 17 do.
20 miles S. of Balto., 9½ do. 18 do.

A proportional additional charge for a greater distance. It is hereby understood that delivery can only be made at convenient landings, and where there is a sufficient depth of water (5½ to 6 feet).

The value of this fertilizer is well known to most of our agriculturists, and is particularly set forth in the reports of our State Agricultural Chemist. N. E. BERRY,
aui-1t No. 8 Bowly's Wharf, Baltimore.

NOTICE!**KEYSTONE CIDER MILL.**

MANY FARMERS in the South want this mill, and write they would order, but fear they cannot get them in time, and do not know how to send the funds. To all responsible men who want the mill, I would say that we made up a stock ahead, early, for that market, and if they will send their orders, with full directions as to how and where they shall be shipped, that I can, now, and will fill their orders promptly, and then instruct them how they shall remit, which can be done by check or draft. Don't waste time in correspondence, as after a short time I may not have the Mills on hand. Order at once, if you want the best article of the kind ever made.

W. O. HICKOK, Agent Eagle Works,
Harrisburg, Penn., July 25, 1856.

aui-2t

**AULT'S ENGLISH TURNIP SEEDS.**

Ault's Improved Swede or Ruta Baga Turnip; Skirring's Improved Swede, Yellow Hybrid, White Globe, White Flat and Red Top Norfolk Flat TURNIP SEED, and other SEEDS in our line may be had fresh and genuine, and which we can recommend to be of the same stock and superior quality as those heretofore sold by us, and which have given so much satisfaction, for sale by

SAMUEL AULT & SON,
corner of Calvert and Water streets,
Baltimore, Md.

jy. 1-2t

TO FARMERS AND GARDENERS!**MAPES' NITROGENIZED**

AND

Mapes' Improved Super Phosphate of Lime:

For Sale in Bags of 160 lbs. each.

The subscribers having been appointed sole Agents in Baltimore for the sale of the above celebrated fertilizers, have constantly on hand a full supply at the following prices:—

MAPES' NITROGENIZED SUPER PHOSPHATE OF LIME, at 21½ cents per lb.
" IMPROVED " " " " 2½ " " "

Being the Manufacturers' prices in New York. The Improved Super-Phosphate is composed of Bone dust, Sulphuric Acid, Peruvian Guano and Sulphate of Ammonia. The Nitrogenized has the same ingredients with an equal weight of dried blood. Both manures compounded by Professor Mapes himself.

For poor soils or soils deficient in Nitrogenous substances the Nitrogenized will be found of greater value than any manure known. To those desirous of testing the effect of these fertilizers samples will be furnished on application to us.

We have also circulars containing acknowledgements of their merits from many well known Agriculturists, and giving full instructions as to their application.

Also

MAPES' No. 1. SUPER-PHOSPHATE OF LIME,

For sale in bags of 160 lbs. each, 2¼ cents per lb.

This article is inferior only to the Nitrogenized and Improved. It is particularly recommended for Fall and Spring top-dressing of grass and grain crops, and for putting down land to these crops.

Orders by mail from strangers should be accompanied with the money or proper references.

RICHARDSON & HOFFMAN, Agents,

No. 95 Smiths' Wharf, Baltimore.

june 1-1f

BALTIMORE MARKETS—JULY 29.

[The latest advices from Europe, per steamer Arabia, show much firmness in the grain market, with an upward tendency of prices, particularly of corn. Considerable shipments of flour and grain have taken place during the past month, and the indications are for a good demand from this country for European consumption.]

Flour, new Howard st. \$7 12; there are but small supplies of Flour, and \$7 12 to 7 25 for City Mills and Howard street, deliverable in a week, are offered. Rye Flour \$3 50 a 3 62. Country Corn Meal \$3 25 a 2 37 per barrel, and City do. \$3 50. Wheat, receipts large, and demand quite active from shippers, at advanced prices over recent sales. Red, 145 a 152 cents for fair to prime, and whites 150 a 155 for fair, 160 a 168 for good to prime, and 168 a 169 for choice family lots. Corn, 58a60c. for ordinary white, 63a65 for good to prime do., and the demand steady— and 58a63 for fair to prime yellow. Rye, 60c. for City Mills, 61c. for ordinary to prime. Whiskey, dull, city, 37c. Ohio, 38c. Tobacco continues firm, and a considerable enquiry for shipment and manufacturing; receipts are light and stocks quite limited; we quote Maryland, frosted and inferior, \$14 50, sound common, 5a6 25, good common to middling 6 50a7 25, good to fine, \$7 50a10 50. Guano, Peruvian, \$58a55 per ton of 2,240 lbs. Colombian, \$40 per ton of 2,240 lbs. Mexican, \$15a25, as in quality. Wool, in good demand, at 20a12c. for unwashed common; tub washed 28a33c., pulled, 31a32, merino, 33a35, common fleece 28a32, half to three quarter do. 33a40c. three quarter to full 40a45, extra merino, 45a50 per lb. Wood, pine, \$3 75a4, ash, 4a1 50, hickory, 6 a 7 50, cord. Rosin, \$1 50a1 60 for the best, and \$1 25 a 1 50 for the second. Tar, 30c. and Pitch 33c. Spr. Turpentine, 38a39c. Varnish, 25c. per gallon. Plaster, \$3 25 per ton, ground, \$1 25a1 37 per barrel.

At New York, July 28, Wheat was firm at 185c. for Southern White. Corn, firm at 61c. for mixed Southern.

WELLS' BROADCAST
GRAIN AND SEED SOWER.

THE above valuable invention to the Farming community was patented in December last, and for the first time is now offered to the Farming interest to inspect and test.

It has long been desired by the grain growing sections of the country, to obtain a machine that would save time and labor in sowing the grain, and at the same time scatter the seed evenly and regularly over the surface. This machine embraces all the desirable qualities requisite for grain and seed sowing. The machine is cheap and of simple arrangement. It can be attached, without trouble or expense, to the fore wheels of a wagon, or to a cart, as may be desired, and worked with one horse and a boy. The SOWER can be regulated so as to put any quantity of grain on the ground desired, and will sow from 40 to 50 bushels per day, according to the size of grain sown. To all the tests to which the EAST SOWER has been subjected, it has fully realized the expectations of its most partial friends, and in presenting it to the Farming community, we do not hesitate to say that it will perform all it is recommended to do.

The undersigned have purchased the right to the States of Delaware, Maryland, Pennsylvania, Virginia, Kentucky, Tennessee, Missouri, Arkansas, Georgia, Alabama, Mississippi, Texas, Florida, North Carolina, South Carolina, Louisiana, Kansas and Nebraska Territories.

Persons wishing to purchase State or county rights in any of the above-named territory, will address us at Weston, Lewis county, Virginia. JAMES McGEE,

THOMAS S. WOOD.
aul-6t

June 19, 1856.

Fresh and Genuine Garden Seeds.



THE undersigned are prepared to supply at wholesale or retail, every variety of fresh and genuine garden seeds. Having in addition to a seed farm, a large vegetable and market garden for growing and testing every variety of seed they sell; it is believed their facilities for the trade are not surpassed by any other establishment. Orders by mail promptly attended to, and goods shipped as directed.

PASCHALL MORRIS & CO.,
Implement & Seed Warehouse,
Cor. 7th and Market, Phila.

au1-32

W. W. DINGEE & CO. of YORK, PA., will deliver in Baltimore a TWO HORSE RAILWAY POWER AND THRESHING MACHINE complete for use, for \$140, including shaker and 30 feet of 3½ inch belting, from the best manufacturers.

Our machines are warranted equal to the best made in the country. The horse power is arranged for the band wheel to go on either side. The Threshers are over-shot, with iron cylinders, the teeth of which will not break out; the cylinders run in steel bearings, and each machine is run, before it leaves the shop, until it works smoothly.

We will also deliver, as above mentioned, a ONE HORSE POWER AND MACHINE, complete for use, for \$120.

We are also manufacturing the best HAY PRESSES in the market which we will deliver in Baltimore, for the following prices:

No. 1	2	3	4	5	100 lbs.—price,	\$80 00
2	3	4	5	150 lbs.—	85 00	
3	4	5	6	200 lbs.—	90 00	
4	5	6	7	250 lbs.—	95 00	
5	6	7	8	300 lbs.—	100 00	

For all the above machines we respectfully solicit orders.

Please address, **W. W. DINGEE & CO.**
aug 1-3t **YORK, PA.**


Krauser's Patent Portable Cider Mills.

WE are now manufacturing the above unrivalled **CIDER MILLS**, greatly improved and strengthened since last year, and are prepared to supply orders by wholesale and retail. They have proved their superiority whenever put in competition with other Mills, and are adapted either for hand or horse power.

PASCHALL MORRIS & CO.,
Agricultural Warehouse and Seed Store,
Cor. 7th and Market sts., Phila.

Where can be supplied every description of implements for the farm and garden, made of the best materials, and in any quantity. Implement, Seed and Nursery Catalogues furnished on application.



 **AGENCY FOR THE PURCHASE AND SALE OF IMPROVED BREEDS OF ANIMALS.**—Stock Cattle of the different breeds, Sheep, Swine, Poultry, &c., purchased to order, and carefully shipped to any part of the United States—for which a reasonable commission will be charged. The following are now on the list and for sale, viz:—

Thorough bred Short Horns and Grade Cattle

Do. do. Alderney do. do.

Do. do. Ayrshire

Do.	do.	Devons	do.	do.
-----	-----	--------	-----	-----

Do. do. South Down Sheep.

No. do. Oxfordshire do.

Lo. do, Leicester

Swine and Poultry of different breeds,
Hobby-nests, etc., will be appreciated.

All letters postpaid, will be promptly attended to. Address

AARON CLEMENT.

mb1 Entrance to office, Shippen st , above 9th, Phila.

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